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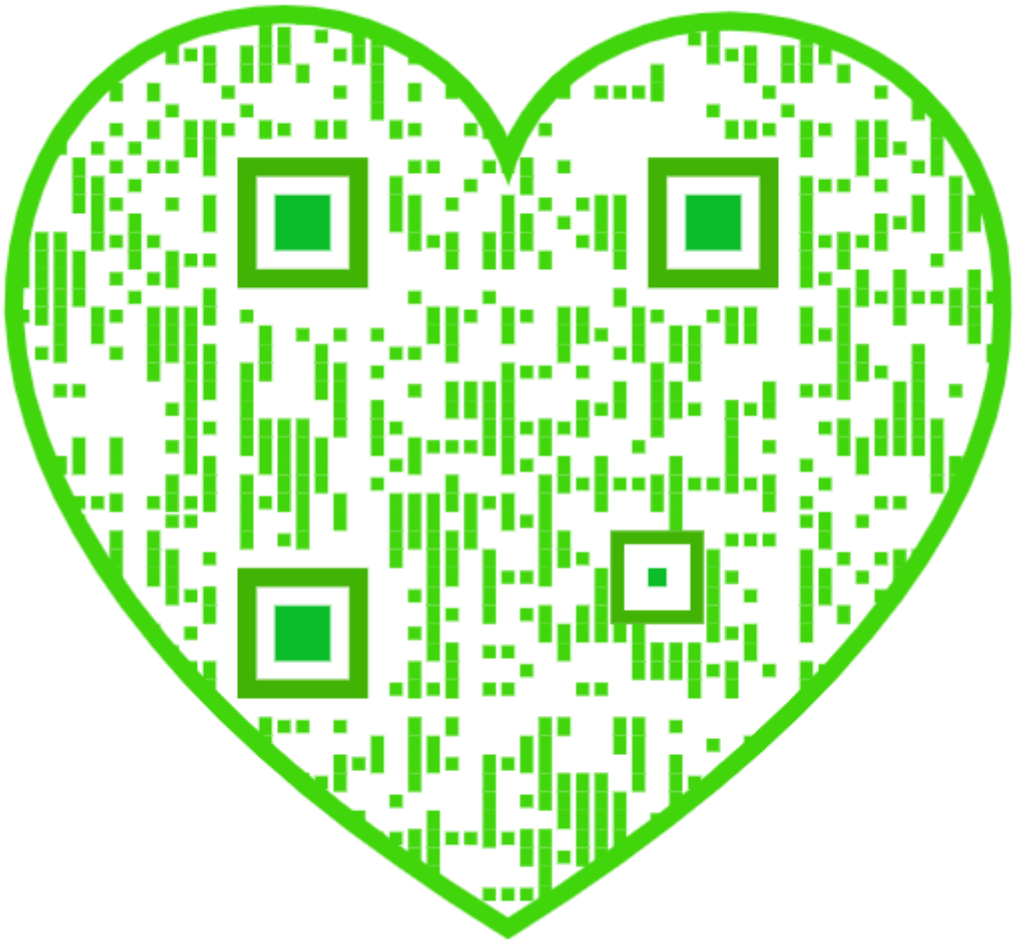

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OBSTETRICAL TRANSACTIONS.

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VOL. XLIII.

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OF THE

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OF

LONDON.

VOL. XLIII.

FOR THE YEAR 1901.

WITH A LIST OF OFFICERS, FELLOWS, ETC.

EDITED BY

HERBERT R. SPENCER, M.D., Senior Secretary,

AND

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1899 Budin, P., M.D., Professor, 4, Avenue Hoche, Paris. *Trans.* 1.

1900 Chadwick, James R., M.A., M.D., Physician for Diseases of Women, Boston City Hospital; Clarendon street, Boston, Massachusetts, U.S.

1895 Gusserow, Professor, Berlin.

1866 Lazarewitch, J., M.D., Professor Emeritus and Physician to the Maximilian Hospital; Spaskaja, 2, St. Petersburg. *Trans.* 3.

1899 Martin, A. E., M.D., Professor of Obstetrics and Gynæcology, Greifswald. *Trans.* 1.

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1899 Pinard, A. Professor, 10, Rue Cambacérés, Paris.

1872 Thomas, T. Gaillard, M.D., Professor of Obstetrics in the College of Physicians and Surgeons; 600, Madison avenue, New York.

1862 Virchow, Rudolf, M.D., Professor of Pathological Anatomy in the University of Berlin.

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1891 Adams, Charles Edmund, 227, Gipsy road, West Norwood, S.E. *Council*, 1901.

1884*†Adams, Thomas Rutherford, M.D., 119, North End, West Croydon. *Council*, 1894-7.

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1880† Balls-Headley, Walter, M.D., F.R.C.P., Lecturer on Obstetrics and Diseases of Women, University of Melbourne, 4, Collins street east, Melbourne, Victoria.

1869* Bantock, George Granville, M.D., Consulting Surgeon to the Samaritan Free Hospital; 12, Granville place, Portman square, W. *Council*, 1874-6. *Trans.* 2.

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1893 Blacker, George Francis, M.D., B.S.Lond., F.R.C.S., Obstetric Physician to University College Hospital; 11, Wimpole street, W. *Council*, 1898-1901. *Board Exam. Midwives*, 1900-1. *Trans.* 2.

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1887* Buxton, Dudley W., M.D. Lond., 82, Mortimer street, Cavendish square, W.

1886† Byers, John W., M.A., M.D., M.A.O. (Hon. Causâ), Professor of Midwifery and Diseases of Women and Children at Queen's College, and Physician for Diseases of Women to the Royal Hospital, Belfast; Dreenagh House, Lower crescent, Belfast. *Vice-Pres.* 1899-1901.

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1867*†Charles, T. Edmondston, M.D., F.R.C.P., 72, Via di San Niccolo da Tolentino, Rome. *Council*, 1882-4.

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1897† Chinery, Edward Fluder, F.R.C.S.Edin., Monmouth House, Lymington, Hants.

1863*†Chisholm, Edwin, M.D., Abergeldie, Ashfield, near Sydney, New South Wales. [Per Messrs. Turner and Henderson, care of Messrs. W. Dawson, 121, Cannon street, E.C.]

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1897 Clark, William Gladstone, M.A.Cantab., 6, Nicholas Street, Chester.

1893 Clarke, W. Bruce, F.R.C.S., Assistant Surgeon to St. Bartholomew's Hospital, 51, Harley street, W.

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1897† Coles, Richard A., M.B. & C.M.Aber., Barham, near Canterbury.

1888† Collins, Edward Tenison, 12, Windsor place, Cardiff.

1866† Coombs, James, M.D., Bedford.

1888 Cooper, Peter, L.R.C.P.Lond., Stainton Lodge, 35, Shooter's Hill road, Blackheath, S.E.

1890 Copeland, William Henry Laurence, M.B.Cantab., 4, Bolton gardens, South Kensington, S.W.

1875*†Cordes, Aug., M.D., M.R.C.P., Consulting Accoucheur to the "Miséricorde;" Privat Docent for Midwifery at the University of Geneva; 12, Rue Bellot, Geneva. *Trans.* 1.

1883 Corner, Cursham, 113, Mile End road, E.

1877 Crawford, James, M.D.Durh., Grosvenor Mansions, Victoria street, S.W.

1876† Crew, John, Manor House, Higham Ferrers, Northamptonshire.

1893 Cripps, William Harrison, F.R.C.S., Surgeon to St. Bartholomew's Hospital; 2, Stratford place, W. *Trans.* 1.

1889† Croft, Edward Octavius, M.D.Durh., Hon. Surgeon to the Hospital for Women and Children; Hon. Demonstrator of Obstetrics to the Yorkshire College, Leeds; 8, Clarendon road, Leeds. *Trans.* 1.

1881*†Cronk, Herbert George, M.B. Cantab., Repton, near Burton-on-Trent.

Elected

1893 Crosby, Herbert Thomas, M.A., M.B., B.C.Cantab., 19, Gordon square, W.C.

1895 Cross, Ernest W., L.R.C.P.Lond., The Limes, Wallwood Park, Leytonstone.

1886*†Cross, William Joseph, M.B., Horsham, Victoria, Australia.

1898† Cullen, Thomas, M.D.Toronto, Johns Hopkins Hospital, Baltimore, U.S.A.

1875* Cullingworth, Charles James, M.D., D.C.L., F.R.C.P., Obstetric Physician to St. Thomas's Hospital; 14, Manchester square, W. *Council*, 1883-5, 1891-3. *Vice-Pres.* 1886-8. *Board Exam. Midwives*, 1889-91. *Chairman*, 1895-6. *Pres.* 1897-8. *Trans.* 13.

1889*†Cursetji, Jehángir J., M.D. Brux., 94, Chundunwádi, Bombay.

1894 Cutler, Lennard, L.R.C.P.Lond., 1, Kensington Gate, Kensington, W. *Trans.* 1.

1885 Dakin, William Radford, M.D., B.S., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery at, St. George's Hospital; 8, Grosvenor street, W., *Council*, 1889-91. *Hon. Lib.* 1892-3. *Hon. Sec.* 1894-7. *Vice-Pres.* 1898-1901. *Chairman*, 1901. *Trans.* 3.

1868 Daly, Frederick Henry, M.D., 185, Amhurst road, Hackney Downs, N.E. *Council*, 1877-9. *Vice-Pres.* 1883-5. *Trans.* 2.

1901 Daly, Frederick James Purcell, L.R.C.P.Lond., 185, Amhurst road, Hackney Downs, N.E.

1893 Dauber, John Henry, M.A. Oxon., M.B., B.Ch., Physician to the Hospital for Women, Soho square; 29, Charles street, Berkeley square, W.

1901 Davies, Hughes Reid, L.R.C.P.Lond., 82, Bow road, E.

1892† Davis, Robert, Darrickwood, Orpington, Kent.

Elected

1877 Davson, Smith Houston, M.D., Campden villa, 203, Maida vale, W. *Council*, 1889-91.

1900† Dawkin, George Mansell, L.R.C.P.Lond., Pontypridd, Glamorganshire.

1891 Dawson, Ernest, L.R.C.P. Lond., The Broadway, Leyton, E. *Trans.* 1.

1889 Des Vœux, Harold A., M.D.Brux., 8, James street, Buckingham gate, S.W. *Council*, 1896-8.

1894 Dickinson, Thomas Vincent, M.D.Lond., M.R.C.P., Physician to the Italian Hospital, Queen square; 33, Sloane street, S.W. *Council*, 1900-1.

1894 Dickson, John William, B.A., M.B., B.C. Cantab., 42, Hertford street, Mayfair, W.

1886† Donald, Archibald, M.D. Edin., M.R.C.P., Obstetric Physician to the Royal Infirmary, Manchester; Honorary Surgeon to St. Mary's Hospital for Women, Manchester; Platt Abbey, Rusholme, Manchester. *Council*, 1893-5. *Trans.* 3.

1879* Doran, Alban H. G., F.R.C.S., Surgeon to the Samaritan Free Hospital; 9, Granville place, Portman square, W. *Council*, 1883-5. *Hon. Lib.* 1886-7. *Hon. Sec.* 1888-91. *Vice-Pres.* 1892-4. *Pres.* 1899-1900. *Trans.* 21.

1890† Douty, Edward Henry, M.A., M.B., B.C.Cantab., Davos Platz, Switzerland.

1887 Dovaston, Milward Edmund, Rosenau, St. George's road, Wimbledon.

1899† Down, Elgar, L.R.C.P.Lond., 14, Mount Edgcumbe terrace, Stoke, Devonport.

1896 Downes, J. Lockhart, M.B., C.M. Edin., 269, Romford road, E.

1884† Doyle, E. A. Gaynes, L.R.C.P., Colonial Hospital, Port of Spain, Trinidad.

Elected

1871† Drake-Brockman, Edward Forster, F.R.C.S., L.R.C.P. Lond., Brigade-Surgeon; c/o Messrs. Richardson and Co., East India Army Agency, 25, Suffolk street, Pall Mall, S.W.

1894† Drew, Henry William, F.R.C.S., Eastgate, East Croydon.

1883 Duncan, Alexander George, M.B., 25, Amhurst park, Stamford hill, N.

1882 Duncan, William, M.D., Obstetric Physician to, and Lecturer on Obstetric Medicine at, the Middlesex Hospital; 6, Harley street, W. *Council*, 1885-6, 1888-9. *Hon. Lib.* 1890-1. *Hon. Sec.* 1892-5. *Vice-Pres.* 1896-9. *Trans.* 2.

1871* Eastes, George, M.B., F.R.C.S., 35, Gloucester terrace, Hyde park, W. *Council*, 1878-80.

1896 Easton, Frank Edward, L.R.C.P. Lond., 12, Devonport street, Hyde park, W.

1883† Eccles, F. Richard, M.D., Professor of Gynæcology, Western University; 1, Ellwood place, Queen's avenue, London, Ontario, Canada.

1893 Eden, Thomas Watts, M.D.Edin., M.R.C.P.Lond., Assistant Obstetric Physician to, and Lecturer on Practical Midwifery at, Charing Cross Hospital, 26, Queen Anne street, W. *Council*, 1897-9. *Trans.* 4.

1890 Ehrmann, Albert, L.R.C.P.Lond., "Glenthorne," 378, Camden road, N.

1901† Ellis, Francis Hamilton, M.B., B.C.Cantab., Broxmore, Woking.

1894 Ellis, Robert Kingdon, M.B., B.Ch.Oxon., Lowdham, Notts.

1873*†Engelmann, George Julius, A.M., M.D., 336, Beacon street, Boston, Mass., U.S.A.

1898† Evans, David J., M.D.McGill, 939, Dorchester street, Montreal.

Elected

1897 Evans, Evan Laming, M.B., B.C.Cantab., F.R.C.S., 116, Piccadilly, W.

1875† Ewart, John Henry, Eastney, Devonshire place, Eastbourne.

1899 Fairbairn, John Shields, M.D., B.Ch.Oxon., Assistant Obstetric Physician to St. Thomas's Hospital, 60, Wimpole street, W.

1894 Fairweather, David, M.A., M.D., C.M.Edin., Carlton Lodge, Palmerston road, Bowes Park, N.

1876† Farncombe, Richard, 183, Belgrave road, Balsall heath, Birmingham.

1869* Farquhar, William, M.D., Deputy Surgeon-General, 40, Westbourne gardens, Bayswater, W.

1882† Farrar, Joseph, M.D., Gainsborough. *Trans.* 1.

1894† Fazan, Charles Herbert, L.R.C.P. Lond., Belmont, Wadhurst, Sussex.

1868* Fegan, Richard, M.D., Westcombe park, Blackheath, S.E.

1886 Fennell, David, L.K.Q.C.P.I., "Castlebar," 116, Palace road, Tulse hill, S.W.

1883 Fenton, Hugh, M.D., Physician, Chelsea Hospital for Women; 27, George street, Hanover square, W.

1901 Ferguson, Georgy Agot, M.D., B.Ch.Oxon, Altidore Villa, Pittville, Cheltenham.

1893 Ferguson, George Gunnis, M.B., C.M.Glas., Fern Combe, New West End, Finchley road, Hampstead, N.W.

1893† Finley, Harry, M.D.Lond., West Malvern, Worcestershire.

1877*† Fonmartin, Henry de, M.D., 26, Newberry terrace, Lower Bullar street, Nichols Town, Southampton.

1897† Fothergill, W. E., M.B., C.M.Edin., 200, Oxford road, Manchester.

1884 Fouracre, Robert Perriman, 58, Tollington park, N.

Elected

1886† Fowler, Charles Owen, M.D., Cotford House, Thornton heath. *Council*, 1901.

1898 Frampton, Trevethan, M.R.C.S., F.R.C.P., 168, Gloucester terrace, Hyde park, W.

1875*†Fraser, Angus, M.D., Physician and Lecturer on Clinical Medicine to the Aberdeen Royal Infirmary; 232, Union street, Aberdeen. *Council*, 1897-1900.

1888† Fraser, James Alexander, L.R.C.P. Lond., Western Lodge, Romford.

1883 Fuller, Henry Roxburgh, M.D. Cantab., 45, Curzon street, Mayfair, W. *Council*, 1893. *Trans.* 1.

1886† Furner, Willoughby, F.R.C.S., 13, Brunswick square, Brighton. *Council*, 1894-6. *Hon. Loc. Sec.*

1874* Galabin, Alfred Lewis, M.A., M.D., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery at, Guy's Hospital; 49, Wimpole street, Cavendish square, W. *Council*, 1876-8. *Hon. Lib.* 1879. *Hon. Sec.* 1880-3. *Vice-Pres.* 1884. *Treas.* 1885-8. *Pres.* 1889-90. *Trans.* 12.

1888 Galloway, Arthur Wilton, L.R.C.P. Lond., 79, New North road, N.

1863* Galton, John H., M.D., Chunam, Sylvan road, Upper Norwood, S.E. *Council*, 1874-6, 1891-2. *Vice-Pres.* 1895-8.

1881 Gandy, William, Hill Top, Central hill, Norwood, S.E. *Council*, 1897-8.

1886*†Garde, Henry Croker, F.R.C.S. Edin., Maryborough, Queensland.

1901 Gardener, William Frederick, L.R.C.P., Darley House, Venner road, Sydenham, S.E.

1887 Gardiner, Bruce H. J., L.R.C.P. Ed., Gloucester House, Barry road, East Dulwich, S.E.

1894 Gardner, H. Bellamy, M.R.C.S., L.R.C.P.Lond., 52, Beaumont street, Portland place, W.

Elected

1879† Gardner, John Twiname, Watersmeet, Ilfracombe.

1872*†Gardner, William, M.A., M.D., Professor of Gynæcology. McGill University; Gynæcologist to the Royal Victoria Hospital; 109, Union avenue, Montreal, Canada.

1876† Garner, John, 21, Easy row, Birmingham.

1891† Garrett, Arthur Edward, L.R.C.S. & L.M.Ed., Dalkeith House, Leamington.

1873*†Garton, William, M.D., F.R.C.S., Inglewood, Aughton, near Ormskirk.

1901 Gayer, Reginald Courtney, L.R.C.P., 13, Rosary gardens, South Kensington, S.W.

1889* Gell, Henry Willingham, M.A., M.B. Oxon., 36, Hyde park square, W.

1898*†Gemmell, John Edward, M.B., C.M.Edin., Hon. Surgeon to the Hospital for Women, Liverpool; 12, Rodney street, Liverpool.

1859* Gervis, Henry, M.D., F.R.C.P., Consulting Obstetric Physician to St. Thomas's Hospital; The Towers, Hillingdon, Uxbridge. *Council*, 1864-6, 1889-91, 1893. *Hon. Sec.* 1867-70. *Vice-Pres.* 1871-3. *Treas.* 1878-81. *Pres.* 1883-4. *Trans.* 8.

1866* Gervis, Frederick Heudebourck, 1, Fellows road, Haverstock hill, N.W. *Council*, 1877-9. *Vice-Pres.* 1892. *Trans.* 1.

1899† Gervis, Henry, M.A., M.B., B.C.Cantab., 74, Dyke road, Brighton.

1883* Gibbons, Robert Alexander, M.D., Physician to the Grosvenor Hospital for Women and Children; 29, Cadogan place, S.W. *Council*, 1889-90. *Trans.* 1.

1894 Gibson, Henry Wilkes, L.R.C.P. Lond., 6, College terrace, Fitzjohn's avenue, N.W.

1892 Giles, Arthur Edward, M.D. Lond., M.R.C.P., Physician to Out-patients, Chelsea Hospital for Women; 10, Upper Wimpole street, W. *Council*, 1898-1900. *Trans.* 7.

Elected

1869 Gill, William, L.R.C.P. Lond., 11, Russell square, W.C.

1891 Gimblett, William Henry, M.D.Durh., Queen's road, Buckhurst hill, Essex.

1899† Glover, Thomas Anderson, M.D., C.M.Edin., 24, Hallgate, Doncaster.

1894† Goddard, Charles Ernest, M.D., Wembley, Harrow.

1871 *Godson, Clement, M.D., C.M.; 82, Brook street, W. *Council*, 1876-7. *Hon. Sec.* 1878-81. *Vice-Pres.* 1882-4. *Board Exam. Midwives*, 1877, 1882-86. *Trans.* 5.

1893† Goodman, Roger Neville, M.A., M.B.Cantab., Elmside, Kingston-on-Thames.

1893† Gordon, Frederick William, L.R.C.P.Lond., Manukau road, Auckland, New Zealand.

1883 Gordon, John, M.D., 63, Cheapside, E.C.

1869† Goss, Tregenna Biddulph, 1, The Circus, Bath. *Hon. Loc. Sec.*

1891† Gostling, William Ayton, M.D., B.S.Lond., Barningham, West Worthing.

1889 Goullet, Charles Arthur, L.R.C.P.Lond., 2, Finchley road, N.W.

1890 Gow, William John, M.D.Lond., Physician-Accoucheur in charge of Out-patients, St. Mary's Hospital; 27, Weymouth street, W. *Council*, 1893-5-1901. *Board Exam. Midwives*, 1898-1900-1. *Trans.* 2.

1893† Gowan, Bowie Campbell, L.R.C.P.Lond., Raven Dene, Great Stanmore.

1893 Grant, Leonard, M.D.Edin., 9, Western villas, New Southgate, N.

1897 Grant-Wilson, Charles Westbrooke, L.R.C.P.Lond., St. Winnows, Bromley, Kent.

1894† Green, Charles Robert Mortimer, F.R.C.S.Eng., Major, Indian Medical Service, c/o Inspector-General of Civil Hospitals, Bengal.

Elected

1887 Greenwood, Edwin Climson, L.R.C.P., 19, St. John's wood park, N.W.

1863 *Griffith, G. de Gorrequer, 34, St. George's square, S.W. *Trans.* 2.

1879* Griffith, Walter Spencer Anderson, M.D. Cantab., F.R.C.S., F.R.C.P., Assistant Physician-Accoucheur to St. Bartholomew's Hospital; 96, Harley street, W. *Council*, 1886-8, 1893-5, 1901. *Hon. Lib.*, 1896-7. *Board Exam. Midwives*, 1887-9. *Trans.* 10.

1888*†Grimsdale, Thomas Babington, B.A., M.B. Cantab., Surgeon to the Hospital for Women, and Medical Officer to the Liverpool Lying-in Hospital; 29, Rodney street, Liverpool.

1880 Grogono, Walter Atkins, Berwick House, Broadway, Stratford, E.

1896† Groves, Ernest W., M.B., B.Sc., Kingswood, Bristol. *Trans.* 1.

1887† Hackney, John, M.D. St. And., Oaklands, Hythe.

1881† Hair, James, M.D., Brinklow, Coventry.

1894 Hamilton, Bruce, L.R.C.P. Lond., "Falklands," 9, Frognal, N.W.

1887† Hamilton, John, F.R.C.S.Ed., Beechhurst House, Swadlincote, Burton-on-Trent.

1883 Handfield-Jones, Montagu, M.D. Lond., F.R.C.P., Physician-Accoucheur to, and Lecturer on Midwifery and Diseases of Women at, St. Mary's Hospital; 35, Cavendish square, W. *Council*, 1887-9, 1896-7. *Board Exam. Midwives*, 1894-6. *Hon. Lib.* 1900-1. *Trans.* 1.

1901 Handley, William Sampson, M.S., M.D. Lond., F.R.C.S.Eng., 41, Devonshire street, Portland place, W.

1889† Hardwick, Arthur, M.D. Durh., Newquay, Cornwall.

1886† Hardy, Henry L. P., Stroud, Gloucestershire.

Elected

1892 Harold, John, L.R.C.P.Lond., 91, Harley street, W.

1889 Harper, Charles John, L.R.C.P. Lond., Church end, Finchley, N.

1877 Harper, Gerald S., M.B.Aber., 40, Curzon street, Mayfair, W. *Council*, 1894-5.

1898† Harper, John Robinson, L.R.C.P., Redcot, Barnstaple, Devon.

1878† Harries, Thomas Davies, F.R.C.S., Grosvenor House, Aberystwith, Cardiganshire.

1867* Harris, William H., M.D., 34, St. Charles square, North Kensington, W.

1880* Harrison, Richard Charlton, 19, Uxbridge road, Ealing, W.

1890† Hart, David Berry, M.D.Edin., Assistant Gynæcologist, Royal Infirmary, Edinburgh; 29, Charlotte square, Edinburgh.

1886† Hartley, Horace, L.R.C.P. Ed., Stone, Staffordshire.

1886 Hartley, Reginald, M.D. Durh., F.R.C.S.Ed., 68, Porchester terrace, Hyde park, W.

1893† Harvey, John Jordan, L.R.C.P. & S.Edin., 54, Barking road, Canning Town, E.

1880 Harvey, John Stephenson Selwyn, M.D.Durh., M.R.C.P., 1, Astwood road, Cromwell road, S.W.

1899† Hawes, Godfrey Charles Browne, L.R.C.P., Pangbourne.

1899*†Hawkes, Claude Somerville, L.R.C.P., Swansea place, Wickham Terrace, Brisbane, Queensland.

1893† Haydon, Thomas Horatio, M.B., B.C. Cantab., 22, High street, Marlborough.

1900 Hayford, Ernest James, M.D., Freetown, Sierra Leone, West Africa.

1901† Haynes, Edward ames Ambrose, F.R.C.S.I., Weeta labah, Hay street west, Perth, Western Australia.

Elected

1880 Heath, William Lenton, M.D., 90, Cromwell road, Queen's gate, S.W. *Council*, 1891. *Trans.* 1.

1892† Hellier, John Benjamin, M.D.Lond., Lecturer on Diseases of Women and Children, Yorkshire College; Hon. Obstetric Physician to Leeds Infirmary; 27, Park square, Leeds.

1890† Helme, T. Arthur, M.D.Edin., M.R.C.P., Senior Assistant Surgeon to the Manchester Clinical Hospital for Women and Children, 3, St. Peter's square, Manchester.

1867† Hembrough, John William, M.D., The Moot Hall, Newcastle-on-Tyne.

1876* Herman, George Ernest, M.B., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery at, the London Hospital; 20, Harley street, Cavendish square, W. *Council*, 1878-9, 1898-1901. *Hon. Lib.* 1880-1. *Hon. Sec.* 1882-5. *Vice-Pres.* 1886-7. *Board Exam. Midwives*, 1886-8. *Treas.* 1889-92. *Pres.* 1893-4. *Trans.* 32.

1901 Hilliard, Francis Porteus Tyrrell, M.A., M.B.Oxon., London Hospital, E.

1898 Hindley, Godfrey D., L.R.C.P.Lond., 11, Gwendolen avenue, Putney.

1886† Hodges, Herbert Chamney, L.R.C.P.Lond., Watton-at-Stone, Herts. *Trans.* 1.

1886† Holberton, Henry Nelson, L.R.C.P.Lond., East Molesey.

1875 Hollings, Edwin, M.D., 22, Endsleigh gardens, N.W. *Council*, 1888-90. *Vice-Pres.* 1893-4.

1897 Hollings, Guy Bertram, M.D., B.S., 22, Endsleigh gardens, N.W.

1859 Holman, Constantine, M.D., 26, Gloucester place, Portman square, W. *Council*, 1867-9, 1895-6. *Vice-Pres.* 1870-1.

Elected

1891† Holman, Robert Colgate, Whithorne House, Midhurst, Sussex.

1864* Hood, Wharton Peter, M.D., 11, Seymour street, Portman square, W.

1896† Hopkins, George Herbert, F.R.C.S., 3, North Quay, Brisbane, Queensland.

1883* Horrocks, Peter, M.D., F.R.C.P.Lond., Obstetric Physician to Guy's Hospital; 42, Brook street, W. *Council*, 1886-7. *Hon. Lib.* 1888-9. *Hon. Sec.* 1890-3. *Vice-Pres.* 1894-6. *Pres.* 1901. *Trans.* 2.

1876 Horsman, Godfrey Charles, 22, King street, Portman square, W.

1883 Hoskin, Theophilus, L.R.C.P. Lond., 1, Amhurst park, N.

1884† Hough, Charles Henry, Full street, Derby.

1879† Hubbard, Thomas Wells. Barming place, Maidstone.

1901 Humphreys, Francis Rowland, L.R.C.P.Lond., 27, Fellows road, N.W.

1884*†Hurry, Jamieson Boyd, M.D. Cantab., 43, Castle street, Reading. *Council*, 1887-9. *Vice.-Pres.* 1897-1900. *Trans.* 2.

1878* Husband, Walter Edward, Grove Lea, Lansdown, Bath.

1895 Huxley, Henry, L.R.C.P.Lond., 39, Leinster gardens, Hyde park, W.

1894† Ilott, Herbert James, M.D. Aber., 57, High street, Bromley, Kent.

1901† Inglis, Arthur Stephen, M.D.Aber., 5, Pevensey road, St. Leonards-on-sea.

1884*†Irwin, John Arthur, M.A., M.D., 14, West Twenty-ninth street, New York.

1883† Jackson, George Henry, Ashburton, Carew road, Eastbourne.

1897 Jäger, Harold, M.B. Lond., 6, Darnley road, Royal crescent, W.

Elected

1873† Jakins, William Vosper, L.R.C.P. Ed., 14, Collins street East, Melbourne.

1890† James, Charles Henry, L.R.C.P.Lond., Captain, Indian Medical Service; Lahore, Punjab, India.

1883*†Jenkins, Edward Johnstone, M.D. Oxon., 213, Macquarie street, Sydney.

1877† Jenks, Edward W., M.D., 84, Lafayette avenue, Detroit, Michigan, U.S.

1882* Jennings, Charles Egerton, M.D. Durh., F.R.C.S. Eng., Assistant Surgeon to the North-West London Hospital; Burke House, Beaconsfield.

1901*†Johnson, Edward Angus, M.B., B.S.Melb., L.R.C.P. Lond., "St. Catharine's" Prospect, South Australia.

1900 Johnson, Henry Heath Pochin, L.R.C.P., 53a, Henry street, Regent's park, N.W.

1868† Jones, Evan, Ty-Mawr, Aberdare, Glamorganshire. *Council*, 1886-8. *Vice.-Pres.* 1890-1. *Hon. Loc. Sec.*

1894 Jones, Evan, L.R.C.P. Lond., 89, Goswell road, E.C.

1895† Jones, George Horatio, Deddington, Oxon.

1881† Jones, James Robert, M.B., 247, Donald street, Winnipeg, Manitoba, Canada.

1894† Jones, John Arnallt, L.R.C.P. Lond., Heathmont, Aberavon, Port Talbot, Glamorganshire.

1887† Jones, J. Talfourd, M.B. Lond. Consulting Physician to the Breconshire Infirmary, St. David's, 1, Lascelles terrace, Eastbourne.

1886 Jones, Lewis, M.D., Oakmead, Balham, S.W.

1873† Jones, Philip W., River House, Enfield.

1886† Jones, William Owen, The Downs, Bowdon, Cheshire.

1879† Joubert, Charles Henry, M.B Lond., F.R.C.S. Eng., Col., Indian Medical Service; Official Principal Medical Officer Punjab Command, Rawulpindi, Punjab.

1884 Keates, William Cooper, L.R.C.P., 20, East Dulwich road, S.E.

Elected

1883† Keeling, James Hurd, M.D., 267, Glossop road, Sheffield. *Hon. Loc. Sec.*

1896 Keep, Arthur Corrie, M.D., C.M.Edin., Surgeon to Outpatients to the Samaritan Free Hospital; 14, Gloucester place, Portman square, W.

1894 Kellett, Alfred Featherstone, M.B., B.C.Cantab., 142, Lewisham road, S.E.

1874* Kempster, William Henry, M.D., Chesterfield, Clapham common, North side, S.W.

1886 Kennedy, Alfred Edmund, L.R.C.P. Ed., Chesterton House, Plaistow, E.

1879 Ker, Hugh Richard, L.R.C.P.Ed., Tintern, 2, Balham hill, S.W.

1895† Kerr, John Martin Munro, M.B., C.M.Glasg.; Obstetric Physician to the Glasgow Maternity Hospital; 28, Berkeley terrace, Glasgow. *Trans.* 1.

1877*†Kerswill, John Bedford, M.R.C.P. Ed., Fairfield, St. German's, Cornwall.

1878† Khory, Rustonjee Naserwanjee, M.D., M.R.C.P., Medical Syndic, Bombay University; Honorary Physician, Bai Motlibai Obstetric and Gynæcological Hospital; Hormazd Villa, Khumballa hill, Bombay.

O.F.* Kiallmark, Henry Walter, 5, Pembridge gardens, Bayswater. *Council*, 1879-80.

1872* Kisch, Albert, 61, Portsdown road, W. *Council*, 1896-7.

1876*†Knott, Charles, M.R.C.P. Ed., Liz Ville, Elm grove, Southsea.

1889 Lake, George Robert, 177, Gloucester terrace, Hyde park, W.

1867* Langford, Charles P., Sunnyside, Hornsey lane, N.

1894† Lea, Arnold W. W., M.D., B.S.Lond., F.R.C.S., Lecturer on Midwifery and Diseases of Women, Owens College; 274, Oxford road, Manchester. *Trans.* 2.

1901 Leahy-Lynch, Timothy, L.R.C.P., L.M.Edin., 107, Fonthill road, Finsbury park, N.

Elected

1884*†Jediard, Henry Ambrose, M.D., 35, Lowther street, Carlisle. *Council*, 1890-2. *Trans.* 1.

1897 Leslie, William Murray, M.D. Edin., 74, Cadogan place, Belgrave square, S.W.

1900* Levison, Hugo Adolf, M.D.(Columbia Univ.), L.R.C.P. Lond., 44, West 35th street, New York.

1885 Lewers, Arthur H. N., M.D. Lond., F.R.C.P., Obstetric Physician to the London Hospital; 72, Harley street, W. *Council*, 1887-9, 1893, 1901. *Board Exam. Midwives*, 1895-7. *Trans.* 12.

1901† Littlewood, Harry, F.R.C.S., 40, Park square, Leeds. *Trans.* 1.

1894 Livermore, William Leppingwell, L.R.C.P. Lond., 52, Stapleton Hall road, Stroud green, N.

1872*†Lock, John Griffith, M.A., 2, Rock terrace, Tenby.

1899 Lockyer, Cuthbert, M.D., B.S.Lond., F.R.C.S., 117a, Harley street, W. *Trans.* 2.

1893† Logan, Roderic Robert Walter, Church street, Ashby-de-la-Zouch.

1859† Lombe, Thomas Robert, M.D., Bemerton, Torquay. *Council*, 1900-1.

1894† Loos, William Christopher, L.R.C.P. Lond.

1893† Lowe, Walter George, M.D. Lond., F.R.C.S., Burton-on-Trent.

1878*†Lycett, John Allan, M.D., Gatcombe, Consulting Gynæcologist to the Wolverhampton and District Hospital for Women, Wolverhampton.

1896† Lyons, A., M.B., Thames Ditton.

1871† McCallum, Duncan Campbell, M.D., Emeritus Professor McGill University; 45, Union avenue, Montreal, Canada. *Trans.* 4.

1890 McCann, Frederick John, M.D., C.M.Edin., F.R.C.S. Eng., M.R.C.P., Physician to In-patients at the Samaritan Hospital; 5, Curzon street, Mayfair, W. *Council*, 1897-8. *Trans.* 3.

Elected

1894† McCausland, Albert Stanley, M.D. Brux., Churchill House, Swanage.

1890 McCaw, J. Dysart, M.D., F.R.C.S., Coolard Lodge, Great North road, East Finchley, N. *Council*, 1898-1900.

1894† McDonnell, Æneas John, M.D., Ch.M. Sydney, Toowoomba, Queensland.

1896 M'Donnell, W. Campbell, L.R.C.P. Lond., Park House, Park lane, Stoke Newington, N.

1892† McKay, W. J. Stewart, M.B., M.Ch.Sydney, Australian Club, Macquarie street, Sydney, N.S.W.

1897† McKerron, Robert Gordon, M.B. Aberd., 1, Albyn place, Aberdeen. *Trans.* 1.

1900† Macan, Jameson John, M.A., M.D.Cantab., Crossgates, Cheam, Surrey.

1893 Maclean, Ewen John, M.D., F.R.S.Edin., M.R.C.P.Lond., Senior Gynæcologist to Cardiff Infirmary; 12, Park place, Cardiff. *Council*, 1900.

1899 Macleod, William Aitken, M.B., C.M.Edin., 9, Pembridge villas, Bayswater, W.

1886 McMullen, William, L.K.Q.C.P.I., 319a, Brixton road, S.W.

1878*† Macnaughton-Jones, H., M.D., M.A.O. (Hon. Causâ), F.R.C.S.I. & Edin., 131, Harley street, Cavendish square, W. *Trans.* 1.

1898 Macnaughton-Jones, Henry, M.B., B.Ch., 12, Sandwell mansions, West End lane, N.W.

1894† McOscar, John, L.R.C.P.Lond., Hazeldene, Kingston road, New Malden, Surrey.

1899† Maguire, George J., M.B., B.Ch., Kew road, Richmond.

1895† Maidlow, William Harvey, M.D.Durh., F.R.C.S.Eng., Ilminster, Somerset.

1884 Malcolm, John D., M.B., C.M., Surgeon to the Samaritan Free Hospital; 13, Portman street, W. *Council*, 1894-6.

Elected

1871† Malins, Edward, M.D., Obstetric Physician to the General Hospital, Professor of Midwifery at Mason College, Birmingham ; 50, Newhall street, Birmingham. *Council*, 1881-3. *Vice-Pres.* 1884-6, 1901. *Hon. Loc. Sec.*

1868*†March, Henry Colley, M.D., Portisham, Dorchester. *Council*, 1890-2.

1887 Mark, Leonard P., M.D.Durh., 61, Cambridge street, Hyde-park, W.

1860† Marley, Henry Frederick, The Nook, Padstow, Cornwall.

1862*†Marriott, Robert Buchanan, Swaffham, Norfolk.

1887† Marsh, O. E. Bulwer, L.R.C.P. Ed., Parkdale, Clytha park, Newport, Monmouthshire.

1890† Martin, Christopher, M.B., C.M.Edin., F.R.C.S.Eng., Surgeon to the Birmingham and Midland Hospital for Women ; 35, George road, Edgbaston, Birmingham. *Trans.* 1.

1883† Maurice, Oliver Calley, 75, London street, Reading. *Council*, 1888-90.

1899† Maxwell, John Preston, M.B.Lond., F.R.C.S., Changhoo, c/o E. P. Mission, Amoy, China. *Trans.* 1.

1890 May, Chichester Gould, M.A., M.D.Cantab., Assistant Physician to the Grosvenor Hospital for Women and Children ; 59, Cadogan place, S.W.

1884† Maynard, Edward Charles, L.R.C.P.Ed., Arundel lodge, Worthing.

1885† Meller, Charles Booth, L.R.C.P. Ed., Cowbridge, Glamorganshire.

1886 Mennell, Zebulon, 1, Royal crescent, Notting hill, W.

1898 Menzies, Henry, M.B.Cantab., 4, Ashley gardens, S.W.

1882 Meredith, William Appleton, M.B., C.M., F.R.C.S.Eng., Surgeon to the Samaritan Free Hospital for Women and Children ; 21, Manchester Square, W. *Council*, 1886-8. *Vice-Pres.* 1891-3. *Trans.* 3.

Elected

1893† Michie, Harry, M.B. Aber., 27, Regent street, Nottingham.

1875*†Miles, Abijah J., M.D., Professor of Diseases of Women and Children in the Cincinnati College of Medicine, Cincinnati, Ohio, U.S.

1895† Miller, James Thomas Roger, Castlegate House, Malton, Yorkshire.

1876* Millman, Thomas, M.D., 59, Yonge street, Toronto, Ontario, Canada.

1880† Mills, Robert James, M.B., M.C., 35, Surrey street, Norwich.

1892† Milton, Herbert M. Nelson, Kasr-el-Aini Hospital, Cairo, Egypt.

1869*†Minns, Pembroke R. J. B., M.D., Thetford, Norfolk.

1867* Mitchell, Robert Nathal, M.D., Brookwood, Hollington, St. Leonard's-on-Sea.

1877 Moon, Frederick, M.B., 20, Bryanston street, Portman square, W.

1859† Moorhead, John, M.D., Surgeon to the Weymouth Infirmary and Dispensary; Weymouth, Dorset.

1895 Morison, Henry Bannermann, M.B. Durh., Lindley Lodge, Mottingham, Eltham, S.E.

1890 Morris, Charles Arthur, M.A., M.B., B.C.Cantab., F.R.C.S., 29, Eccleston street, Eaton square, S.W.

1883 Morris, Clarke Kelly, Gordon Lodge, Charlton road, Blackheath, S.E.

1899 Morris, Edwin Hugh Grant, M.B., B.C.Cantab., 47, Onslow gardens, S.W.

1893 Morrison, James, L.R.C.P. Lond., Camden House, Wylde green, Birmingham.

1893† Morse, Thomas Herbert, F.R.C.S., All Saints' green, Norwich. *Trans.* 1.

1886† Morton, Shadforth, M.D. Durham, 24, Wellesley road, Croydon.

Elected

1896 Mugford, Sidney Arthur, L.R.C.P., 135, Kennington park road, S.E.

1893 Muir, Robert Douglas, M.D., The Limes, New Cross road, S.E.

1896† Murphy, James Keogh, M.A., M.D., B.C.Cantab., 35, Princes square, Bayswater, W.

1885 Murray, Charles Stormont, L.R.C.S. and L.M. Ed., 85, Gloucester place, Portman square, W.

1893† Murray, Robert Milne, M.B. Edin., 11, Chester street, Edinburgh.

1893† Nairne, John Stuart, F.R.C.S. Ed., 141, Hill street, Garnethill, Glasgow.

1887 Napier, A. D. Leith, M.D. Aber., M.R.C.P. Lond., F.R.S.Edin., North terrace, East Adelaide, South Australia. *Trans.* 2.

1896† Nariman, R. T., M.D. Brux., Parsi Lying-in Hospital, Bombay.

1892† Nash, W. Gifford, F.R.C.S., Clavering House, De Parys avenue, Bedford.

1859† Neal, James, M.D., Parterre, Sandown, Isle of Wight.

1859*† Newman, William, M.D., Surgeon to the Stamford and Rutland Infirmary; Barn Hill House, Stamford, Lincolnshire. *Council*, 1873-5. *Vice-Pres.* 1876-7. *Trans.* 5.

1889† Newnham, William Harry Christopher, M.A., M.B. Cantab., Physician-Accoucheur to the Bristol General Hospital; Chandos Villa, Queen's road, Clifton, Bristol.

1895† Newstead, James, 9, York place, Clifton, Bristol.

1893† Nichol, Frank Edward, M.A., M.B., B.C. Cantab., 11, Ethelbert Terrace, Margate.

1873† Nicholson, Arthur, M.B. Lond., 30, Brunswick square, Brighton. *Council*, 1897-9.

1876* Nix, Edward James, M.D., 11, Weymouth street, W. *Council*, 1889-90.

Elected

1882† Norman, John Edward, Lismore House, Hebburn-on-Tyne.

1888 Oliver, Franklin Hewitt, L.R.C.P. Lond., 2, Kingsland road, N.E.

1899† Osborn, Francis Arthur, L.R.C.P.Lond., The Chalet, Dover.

1890† Osburn, Harold Burgess, L.R.C.P., Bagshot, Surrey.

1877† Osterloh, Paul Rudolph, M.D. Leipzic, Physician for Diseases of Women, Diaconissen Hospital; Wienerstrasse 8, Dresden.

1892 Owen, Samuel Walshe, L.R.C.P.Lond., 10, Shepherd's Bush road, W.

1889* Page, Harry Marmaduke, M.D.Brux., F.R.C.S., 26, Ashley gardens, Victoria street, S.W.

1891† Page, Herbert Markant, M.D.Brux., 16, Prospect hill, Redditch.

1877* Paramore, Richard, M.D., 2, Gordon square, W.C.

1867*†Parks, John, Bank House, Manchester road, Bury, Lancashire.

1887 Parsons, John Inglis, M.D.Durh., M.R.C.P., Physician to Out Patients, Chelsea Hospital for Women, 3, Queen street, Mayfair, W. *Trans.* 2.

1880 Parsons, Sidney, 78, Kensington Park road, W.

1865*†Paterson, James, M.D., Hayburn Bank, Partick, Glasgow.

1899 Paul, J. E., M.D., 26, Queensborough terrace, Bayswater, W.

1882* Peacey, William, M.D., Rydal Mount, St. John's road, Eastbourne.

1894 Peake, Solomon, M.R.C.S., 118, Percy road, Shepherd's Bush, W.

1899 Peck, Francis Samuel, M.R.C.S.Eng., Major, Indian Medical Service; 6, Harington street, Calcutta.

1871* Pedler, George Henry, 6, Trevor terrace, Rutland gate, S.W. *Council*, 1897-8.

Elected

1880*†Pedley, Thomas Franklin, M.D., Rangoon, India. *Trans.* 1.

1898 Penny, Alfred Gervase, M.A., M.B., B.C.Cantab., Queen's Avenue, Muswell Hill, N.

1881† Perigal, Arthur, M.D., New Barnet, Herts. *Council*, 1892–3.

1893 Perkins, George C. Steele, M.D., 85, Wimpole street, W.

1879*†Pesikaka, Hormasji Dosabhai, 23, Hornby row, Bombay.

1894 Petty, David, M.B., C.M.Edin., 6, High road, South Tottenham, N.E.

1879 Phillips, George Richard Turner, 28, Palace court, Bayswater hill, W. *Council*, 1891.

1882 Phillips, John, M.A., M.D. Cantab., F.R.C.P., Obstetric Physician to King's College Hospital, and Lecturer on Practical Obstetrics in King's College; 68, Brook street, W. *Council*, 1887-9, 1893. *Hon. Lib.* 1894-5. *Hon. Sec.* 1896-9. *Board Exam. Midwives*, 1892-4. *Vice-Pres.* 1900-1. *Trans.* 11.

1897 Phillips, Llewellyn C. P., M.B., B.C. Cantab., St. Bartholomew's Hospital, E.C.

1878* Philpot, Joseph Henry, M.D., 61, Chester square, S.W. *Council*, 1891.

1889† Pinhorn, Richard, L.R.C.P. Lond., 5, Cambridge terrace, Dover. *Council*, 1897-9.

1893 Playfair, Hugh James Moon, M.D.Lond., Assistant Physician, Hospital for Women and Children, Waterloo road; 7, Upper Brook street, Grosvenor square, W. *Council*, 1900.

1864* Playfair, W. S., M.D., LL.D., F.R.C.P., Physician-Accoucheur to H.I. & R.H. the Duchess of Edinburgh; Consulting Obstetric Physician to King's College Hospital, 38, Grosvenor street, W. *Council*, 1867, 1883-5. *Hon. Librarian*, 1868-9. *Hon. Sec.* 1870-72. *Vice-Pres.* 1873-5. *Pres.* 1879-80. *Trans.* 15.

Elected

1891 Pollock, William Rivers, M.B., B.C.Cantab., Assistant Obstetric Physician to the Westminster Hospital, 56, Park street, Grosvenor square, W. *Council*, 1895-7. *Board Exam. Midwives*, 1898-9.

1876* Pope, H. Campbell, M.D., F.R.C.S., Broomsgrove Villa, 280, Goldhawk road, Shepherd's Bush, W.

1891† Pope, Henry Sharland, M.B., B.C.Cantab., Castle Bailey, Bridgwater.

1888* Popham, Robert Brooks, M.R.C.P.Edin., L.R.C.P.Lond., care of Dr. MacVine, 350, Camden road, N.W.

1893 Powell, Herbert Edward, Manor Lodge, Upper Clapton, N.E.

1901 Powell, Llewellyn, M.B., B.C.Cantab., 3, Campden House chambers, Sheffield terrace, W.

1886 Prangley, Henry John, L.R.C.P.Lond., Tudor House, 197, Anerley road, Anerley, S.E.

1880* Prickett, Marmaduke, M.A.Cantab., M.D., Physician to the Samaritan Hospital; 27, Oxford square, W. *Council*, 1892.

1895 Priestley, R. C., M.A., M.B.Cantab., 81, Linden gardens, Bayswater, W.

1898† Purslow, Charles Edwin, M.D., M.R.C.P.Lond., Honorary Obstetric Officer, Queen's Hospital, Birmingham; 192, Broad street, Birmingham.

1876*†Quirke, Joseph, M.R.C.P. Ed., The Oaklands, Hunter's road, Handsworth, Birmingham.

1878† Rawlings, John Adams, M.R.C.P.Ed., Preswylfa, Swansea.

1897 Rawlings, J. D., M.B.Lond., Rose Hill House, Dorking.

1870* Ray, Edward Reynolds, 15a, Upper Brook street, W.

1894† Rayner, Herbert Edward, F.R.C.S., Harcourt House, Camberley, Surrey.

1899† Rayner, David Charles, F.R.C.S.Eng., 9, Lansdown place, Victoria square, Clifton, Bristol.

Elected

1860* Rayner, John, M.D., Swaledale House, Highbury quadrant, N.

1879 Read, Thomas Laurence, 11, Petersham terrace, Queen's gate, S.W. *Council*, 1892.

1879† Reid, William Loudon, M.D., Professor of Midwifery and Diseases of Women and Children, Anderson's College; Physician to the Glasgow Maternity Hospital; 7, Royal crescent, Glasgow. *Council*, 1899-1901.

1893† Renshaw, Israel James Edward, F.R.C.S.Edin., Ashton Grange, Cross street, Ashton-upon-Mersey.

1875*† Rey, Eugenio, M.D., 39, Via Cavour, Turin.

1890 Reynolds, John, M.D.Brux., 11, Brixton hill, S.W.

1872*† Richardson, William L., M.D., A.M., Professor of Obstetrics in Harvard University; Physician to the Boston Lying-in Hospital; 225, Commonwealth avenue, Boston, Massachusetts, U.S.

1889† Richmond, Thomas, L.R.C.P. Ed., 22, Holyrood crescent, Glasgow.

1871* Rigden, Walter, M.D. St. And., 16, Thurloe place, S.W. *Council*, 1882-3. *Trans.* 1.

1892 Roberts, Charles Hubert, M.D.Lond., F.R.C.S.Eng., M.R.C.P., Physician to Out-patients to Queen Charlotte's Hospital; Demonstrator of Practical Midwifery and Diseases of Women, St. Bartholomew's Hospital; 21, Welbeck street, Cavendish square. *Council*, 1897-9. *Board Exam. Midwives*, 1901. *Trans.* 4.

O.F.*† Roberts, David Lloyd, M.D., F.R.C.P., F.R.S. Edin., Consulting Obstetric Physician to the Manchester Royal Infirmary; and Lecturer on Clinical Midwifery and the Diseases of Women in Owens College; 11, St. John street, Deansgate, Manchester. *Council*, 1868-70, 1880-2. *Vice-Pres.* 1871-2. *Trans.* 5.

1867* Roberts, David W., M.D., 56, Manchester street, Manchester square, W.

Elected

1890† Roberts, Hugh Jones, Gwyddfor, Penygroes, R.S.O., N. Wales.

1893 Roberts, Thomas, 2, Selborne gardens, York road, Ilford, Essex.

1874* Robertson, William Borwick, M.D., St. Anne's, Thurlow park road, West Dulwich, S.E.

1892 Robinson, George H. Drummond, M.D., B.S. Lond., Assistant Obstetric Physician, West London Hospital; 84, Park street, Grosvenor square, W. *Council*, 1899-1900. *Board Exam. Midwives*, 1898-1900. *Trans.* 2.

1887 Robinson, Hugh Shapter, L.R.C.P. Ed., Talfourd House, 78, Peckham road, Camberwell, S.E.

1895† Robson, Alfred William, M.D.Brux., Kempstow House, 111, Park road, Aston, Birmingham.

1890† Robson, A. W. Mayo, F.R.C.S., 7, Park square, Leeds.

1876†*Roe, John Withington, M.D., Ellesmere, Salop.

1874*†Roots, William Henry, Canbury House, Kingston-on-Thames.

1874 Roper, Arthur, M.D.St.And., Colby, Lewisham hill, S.E. *Council*, 1886-8.

1893† Rosenau, Albert, M.D., Hôtel Victoria, Kissingen, Bavaria. (*Winter*, Avenue la Costa, Monte Carlo.)

1884† Rossiter, George Frederick, M.B., Surgeon to the Weston-super-Mare Hospital; Cairo Lodge, Weston-super-Mare.

1884† Roughton, Walter, F.R.C.S., Cranborne House, New Barnet.

1882* Routh, Amand, M.D., B.S., F.R.C.P., Obstetric Physician and Lecturer on Midwifery at Charing Cross Hospital; 14a, Manchester square, W. *Council*, 1886-8, 1896-7. *Board Exam. Midwives*, 1893-5. *Hon. Lib.* 1898-9. *Hon. Sec.* 1900-1. *Trans.* 5.

Elected

O.F.* ROUTH, CHARLES HENRY FELIX, M.D., Consulting Physician to the Samaritan Free Hospital for Women and Children; 52, Montagu square, W. *Council*, 1859-61. *Vice-Pres.* 1874-6. *Trans.* 13.

1887*†ROWE, ARTHUR WALTON, M.D. Dur., 1, Cecil street, Margate.

1886 RUSHWORTH, FRANK, M.D. Lond., 1A, Goldhurst terrace, South Hampstead, N.W.

1888† RUSHWORTH, NORMAN, L.R.C.P. Lond., Beechfield, Walton-on-Thames.

1886† RUTHERFOORD, HENRY TROTTER, M.A., M.D. Cantab., Salisbury House, Taunton. *Council*, 1892-3. *Trans.* 1.

1866*†SABOIA, Baron V. de, M.D., Director of the School of Medicine, Rio de Janeiro; 7, Rua dom Affonso, Petropolis, Rio Janeiro. *Trans.* 2.

1864*†SALTER, JOHN H., D'Arcy House, Tolleshunt d'Arcy, Kelvedon, Essex. *Council*, 1894-6.

1868* SAMS, JOHN SUTTON, St. Peter's Lodge, Eltham road, Lee, S.E. *Council*, 1892.

1886† SANDERSON, ROBERT, M.B. Oxon., 56, Brunswick square, Brighton.

1872 SANGSTER, CHARLES, 148, Lambeth road, S.E.

1877 SAVORY, CHARLES TOZER, M.D., 25, Grange road, Canonbury, N. *Trans.* 1.

1894† SAVORY, HORACE, M.A., M.B., B.C.Cantab., 2, Harpur place, Bedford. *Trans.* 1.

1890 SCHACHT, FRANK FREDERICK, B.A., M.D.Cantab., 153, Cromwell road, S.W.

1888 SCOTT, PATRICK CUMIN, B.A., M.B. Cantab., 38, Shooter's Hill road, Blackheath, S.E.

1882 SERJEANT, DAVID MAURICE, M.D., 27, Peckham road, S.E.

1875 SETON, DAVID ELPHINSTONE, M.D., 1, Emperor's gate, S.W. *Council*, 1884.

1896† SHARMAN, MARK, M.B., C.M.Glas., Rickmansworth.

Elected

1894† Sharpin, Archdale Lloyd, L.R.C.P. Lond., 23, Kimbolton road, Bedford.

1887 Shaw, John, M.D. Lond., Obstetric Physician to the North-West London Hospital; 32, New Cavendish street, Cavendish square, W. *Trans.* 3.

1891 Shaw-Mackenzie, John Alexander, M.D. Lond., 31, Grosvenor street, W.

1900† Shepherd, Thomas William, L.R.C.S.Edin., Castle Hill House, Launceston.

1900 Sherren, James, L.R.C.P.Lond., F.R.C.S.Eng., London Hospital, E.

1888† Sinclair, William Japp, M.D. Aber., Honorary Physician to the Southern Hospital for Women and Children and Maternity Hospital, Manchester; and Professor of Obstetrics and Gynæcology, Owens College, Manchester; 250, Oxford road, Manchester. *Council*, 1899-1901. *Trans.* 1.

1881† Sloan, Archibald, M.B., 21, Elmbank street, Glasgow.

1876† Sloan, Samuel, M.D., C.M., 5, Somerset place, Sauchiehall street west, Glasgow.

1890† Sloman, Frederick, 18, Montpellier road, Brighton.

1861 Slyman, William Daniel, 26, Caversham road, Kentish Town, N.W. *Council*, 1881.

1901 Smith, Guy Bellingham, M.B., B.S.Lond., F.R.C.S., 24, St. Thomas's street, S.E.

1867* Smith, Heywood, M.D., 18, Harley street, Cavendish square, W. *Council*, 1872-5. *Board Exam. Midwives*, 1874-6. *Trans.* 6.

1875 Smith, Richard Thomas, M.D., Physician to the Hospital for Women, Soho square; 117, Haverstock hill, N.W.

1886† Smith, Samuel Parsons, L.K.Q.C.P.I., Park Hyrst, Addiscombe road, Croydon.

1899*†Smyly, William Josiah, M.D., F.R.C.P.I., 58, Merrion square, Dublin.

1899† Smithson, Oliver, L.R.C.P., Moor street, Luton, Beds.

Elected

1895 Soden, Wilfred Newell, M.B.Lond., 186, Amhurst road, Hackney, N.E.

1895 Sparks, Charles Edward, M.B., B.C., B.A.Cantab., Netherdale, Church End, Finchley, N.

1868* Spaull, Barnard E., 1, Stanwick road, West Kensington, W.

1888* Spencer, Herbert R., M.D., B.S.Lond., F.R.C.P., Professor of Midwifery in University College, London, and Obstetric Physician to University College Hospital; 104, Harley street, W. *Council*, 1890-92. *Board Exam. Midwives*, 1896-7. *Hon. Sec.* 1898-1901. *Trans.* 8.

1876† Spencer, Lionel Dixon, M.D., Brigade-Surgeon, I.M.S., Bengal Establishment [care of Messrs. Grindlay and Co., 55, Parliament street, S.W.].

1882 Spooner, Frederick Henry, M.D., Maitland Lodge, Maitland place, Clapton, N.E.

1876† Spurgin, Herbert Branwhite, 82, Abington street, Northampton.

1897 Stabb, Arthur Francis, M.B., B.C. Cantab., Assistant Obstetric Physician to St. George's Hospital, and Lecturer in Midwifery in the University of Cambridge; 109, Harley street, W. *Council*, 1899-1901.

1894 Stevens, Thomas George, M.D., B.S. Lond., 8, St. Thomas's street, S.E. *Trans.* 2.

1884† Stevenson, Edmond Sinclair, F.R.C.S. Ed., Strathallan House, Rondebosch, Cape of Good Hope. *Trans.* 2.

1877† Stephenson, William, M.D., Professor of Midwifery, University of Aberdeen; 3, Rubislaw terrace, Aberdeen. *Council*, 1881-3. *Vice-Pres.*, 1887-9. *Trans.* 2.

1875*†Stewart, William, F.R.C.P. Ed., 26, Lethbridge road, Southport.

1884† Stiven, Edward W. F., M.D., The Manor Lodge, Harrow-on-the-Hill.

1884 Stivens, Bertram H. Lyne, M.D.Brux., 107, Park street, Grosvenor square, W.

1883 Stocks, Frederick, 421, Wandsworth road, S.W

Elected

1894† Stott, William Atkinson, M.R.C.S., L.R.C.P. Lond., 1, Grove terrace, Leeds.

1866* Strange, William Heath, M.D., 2, Belsize avenue, Belsize park, N.W. *Council*, 1882-4.

1895 Stuck, Sidney Joseph, M.D., Kent House, 6, Bow road, E.

1898† Sturmer, Arthur James, Lieut.-Col., Indian Medical Service, Madras.

1884 Sunderland, Septimus, M.D., M.R.C.P., Physician to the Royal Hospital for Children and Women; 11, Cavendish place, Cavendish square, W.

1894 Swallow, Allan James, M.B., B.S. Durh., Taunton House, 404, Clapham road, S.W.

1896 Swan, Charles Atkin, M.B., B.Ch.Oxon., 4, Devonport street, Hyde Park, W.

1901 Swanton, James Hutchinson, M.D., M.Ch., 40, Harley street, W.

1893 Swayne, Francis Griffiths, M.A., M.B., B.C.Cantab., 140, Church road, Norwood, S.E.

1859*†Swayne, Joseph Griffiths, M.D., Consulting Physician-Accoucheur to the Bristol General Hospital; Emeritus Professor of Midwifery in University College, Bristol; Harewood House, 74, Pembroke road, Clifton, Bristol. *Council*, 1860-1. *Vice-Pres.* 1862-4. *Trans.* 9.

1892† Swayne, Walter Carless, M.D.Lond., Obstetric Physician, Bristol Royal Infirmary; Lecturer on Practical Midwifery in University College, Bristol; 8, Leicester place, St. Paul's road, Clifton.

1888* Sworn, Henry George, L.K.Q.C.P. & L.M., 5, Highbury crescent, N.

1883 Tait, Edward Sabine, M.D., 48, Highbury park, N. *Council*, 1892-4. *Trans.* 1.

1879 Tait, Edward W., 10, Ellerdale road, Hampstead, N.W. *Council*, 1886-7.

1880*†Takaki, Kanaheiro, F.R.C.S., 10, Nishi-Konyachō, Kiōbashika, Tokio, Japan. *Hon. Loc. Sec.*

Elected

1891 Targett, James Henry, M.B., M.S. Lond., F.R.C.S., Assistant Obstetric Surgeon to Guy's Hospital, 6, St. Thomas's street, S.E. *Council*, 1895. *Board Exam. Midwives*, 1900-1.

1892 Tate, Walter William Hunt, M.D.Lond., Obstetric Physician to, and Lecturer on Midwifery and the Diseases of Women at, St. Thomas's Hospital; 32, Queen Anne street, Cavendish square, W. *Council*, 1895-7. *Board Exam. Midwives*, 1898-9. *Trans.* 1.

1871 Tayler, Francis T., B.A. Lond., M.B., Claremont villa, 224, Lewisham High road, S.E.

1900 Taylor, Frank Edward, M.A., M.B., Chelsea Hospital for Women, Fulham road, S.W.

1890*† Taylor, John William, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women; Professor of Gynæcology, Birmingham University; 22, Newhall street, Birmingham. *Trans.* 2. *Council*, 1900-1.

1892 Taylor, William Bramley, 145, Denmark hill, S.E.

1885† Taylor, William Charles Everley, M.R.C.P. Edin., 34, Queen street, Scarborough.

894† Tench, Montague, M.D. Brux., L.R.C.P. Lond., Great Dunmow, Essex.

1890† Thomas, Benjamin Wilfred, L.R.C.P. Lond., Welwyn.

1899† Thomas, J. Raglan, M.D., 13, West Southernhay, Exeter.

1887† Thomas, William Edmund, L.R.C.P.Ed., Ashfield, Bridgend, Glamorganshire.

1901 Thompson, Charles Herbert, M.D.Dubl., 17, New Cavendish street, W.

1867*† Thompson, Joseph, L.R.C.P.Lond., Surgeon to the General Hospital and Hospital for Women, Nottingham; 1, Oxford street, Nottingham. *Trans.* 1. *Hon. Loc. Sec. Council*, 1896-8.

Elected

1878 Thomson, David, M.D., 33, Lowndes street, Belgrave square, S.W.

1873* Ticehurst, Charles Sage, Petersfield, Hants.

1895† Tinley, William Edwin Falkingridge, M.B., B.S.Durh., Thorsgrit, Whitby.

1879† Tivy, William James, F.R.C.S. Ed., 8, Lansdown place, Clifton, Bristol.

1872† Totoтschinoff, N., M.D., Charkoff, Russia.

1884 Travers, William, M.D., 2, Phillimore gardens, W.

1893† Trethowan, William, M.B., C.M. Aber., care of Dr. Mac-Williams, Perth, Western Australia.

1886† Tuckett, Walter Reginald, Woodhouse Eaves, near Loughborough.

1898 Turner, Arthur Scott, L.R.C.P.Lond., 39, Anerley road, Upper Norwood, S.E.

1865* Turner, John Sidney, Stanton House, 81, Anerley road, Upper Norwood, S.E. *Council*, 1893-4.

1891 Turner, Philip Dymock, M.D.Lond., Sudbury villa, Ryde, Isle of Wight. *Trans.* 1.

1861 Tweed, John James, F.R.C.S., 14, Upper Brook street, W. *Council*, 1896.

1897 Twynam, George Edward, L.R.C.P.Lond., 31, Gledhow gardens, S.W.

1890 Tyrrell, Walter, L.R.C.P.Lond., 104, Cromwell road, S.W.

1893 Umney, William Francis, M.D.Lond., Heatherbell, 15, Crystal Palace park road, Sydenham, S.E.

1874* Venn, Albert John, M.D., 63, Grosvenor street, W.

1873* Verley, Reginald Louis, F.R.C.P. Ed., Constitutional Club, W.C.

1892† Verrall, Thomas Jenner, L.R.C.P.Lond., 97, Montpellier road, Brighton.

1900* Vincent, Ralph Henry, M.D., B.S.Durh., Harley street, W.

Elected

1879† Wade, George Herbert, Ivy Lodge, Chislehurst, Kent. *Council*, 1892-3.

1894† Wagstaff, Frank Alex., L.R.C.P. Lond., Saffron Walden, Essex.

1860† Wales, Thomas Garneys, Downham Market, Norfolk.

1898† Walker, Alfred, M.D., B.C., M.A.Cantab., 12, Lingfield road, Wimbledon.

1866*†Walker, Thomas James, M.D., Surgeon to the General Infirmary, Peterborough; 33, Westgate, Peterborough. *Council*, 1878-80. *Hon. Loc. Sec.*

1889 Wallace, Abraham, M.D. Edin., 39, Harley street, W.

1901† Wallace, Arthur John, M.D.Edin., 1, Gambier terrace, Liverpool.

1870 Wallace, Frederick, Foulden Lodge, Upper Clapton, N.E. *Council*, 1880-2.

1897† Wallace, James Robert, M.D.Brux., F.R.C.S.I., 50, Park street, Calcutta.

1883 Wallace, Richard Unthank, M.B., Cravenhurst, Craven park, Stamford hill, N.

1893† Walls, Willlam Kay, M.B. Lond., 14, St. John street, Manchester.

1879*†Walter, William, M.A., M.D., Surgeon to St. Mary's Hospital, Manchester; 20, St. John street, Manchester.

1867*†Walters, James Hopkins, Surgeon to the Royal Berkshire Hospital; 15, Friar street, Reading, Berks. *Council*, 1884-6. *Trans.* 1. *Hon. Loc. Sec.*

1873† Walters, John, M.B., Church street, Reigate, Surrey. *Council*, 1896-8. *Trans.* 1.

1898*†Ward, Charles, F.R.C.S.I., M.R.C.S.Eng., Pietermaritzburg, Natal, S. Africa.

1895 Warner, Frederick Ashton, L.R.C.P., 10, Brechin place, South Kensington, S.W.

1898† Watson, C. R., M.D.Brux., 3, Mount Ephraim road, Tunbridge Wells.

Elected

1899† Watson, Harry Jackson, M.D., C.M. Toronto, c/o. Chief Surgeon, Department of Southern Luzon, Manila, Philippine Islands.

1884† Waugh, Alexander, L.R.C.P. Lond., Midsomer-Norton, Bath.

1894† Webb, John Curtis, M.A., M.B., B.C.Cantab., 6, Collingham place, Earl's Court.

1886† Webber, William W., L.R.C.P. Ed., Crewkerne.

1893† Webster, Thomas James, Brynglâs, Merthyr Tydvil.

1901† Weekes, Henry Holman, M.D.Brux., L.R.C.P.Lond., Mansion House, Old Brompton, Kent.

1897† Weeks, Courtenay Charles, L.R.C.P.Lond., 9, Lewisham park, Lewisham, S.E.

1886† West, Charles J., L.R.C.P. Lond., The Grove, Fulbeck, Grantham.

1888* Weston, Joseph Theophilus, M.D.Brux., Civil Surgeon, Hissar, Punjab (care of Messrs. Thacker, Spink, and Co., booksellers and publishers, Government place, Calcutta).

1890 Wheaton, Samuel W., M.D.Lond., Physician to the Royal Hospital for Children and Women; 76, The Chase, Clapham common, S.W.

1890 White, Charles Percival, M.A., M.B., B.C.Cantab., 22, Cadogan gardens, S.W. *Council*, 1901.

1882 Wholey, Thomas, M.B. Durh., Winchester House, 50, Old Broad street, E.C.

1901† Wigg, Henry Higham, M.D.Brux., L.R.C.P.Adelaide.

1901 Willey, F. J. I., M.B., B.S., The Wych, Avenue road, Highgate.

1872 Williams, Sir John, Bart., M.D., F.R.C.P., Physician-Accoucheur to H.R.H. Princess Beatrice, Princess Henry of Battenberg; Consulting Obstetric Physician to University College Hospital; 63, Brook street, Grosvenor square, W. *Council*, 1875-6, 1892, 1894. *Hon. Sec.* 1877-9. *Vice-Pres.* 1880-2. *Board Exam. Midwives*, 1881-2; *Chairman*, 1884-6. *Pres.* 1887-8. *Trans.* 12. *Trustee.*

Elected

1897 Williams, Joseph William, L.R.C.P., 128, Mansfield road, Gospel Oak, N.W.

1890 Williams, Reginald Muzio, M.D.Lond., 35, Kensington park gardens, W.

1899 Williamson, Herbert, M.A., M.B., B.C.Cantab., 10, Bentinck street, Manchester square, W. *Trans.* 1.

1881 Willis, Julian, M.R.C.P. Ed., care of Walter Willis, Esq., 20, Nottingham place, York gate, W.

1898† Wilson, Claude, M.D.Edin.. Belmont, Church road, Tunbridge Wells.

1892† Wilson, Thomas, M.D., B.S.Lond., F.R.C.S., Assistant Obstetric Physician at the General Hospital, Birmingham ; 87, Cornwall street, Newhall street, Birmingham. *Trans.* 3.

1901† Wilson, Thomas George, M.B., Ch.M.Sydney, F.R.C.S. Edin. ; Armidale, New South Wales.

1900† Wingate, William Warburton, M.B., B.C.Cantab., 60, St. Andrew's street, Cambridge.

1886† Winterbottom, Arthur Thomas, L.R.C.P. Ed., Lark hill, Swinton, Manchester.

1896† Winter, John Bradbury, L.R.C.P, 28, Montpelier road, Brighton.

1877* Wintle, Henry, M.B., Elmsleigh, High street, Staines.

1893 Wise, Robert, M.D.Edin., 5, Weston park, Crouch End, N.

1887† Withers, Robert, Stenteford Lodge, Spencer terrace, Lipson road, Plymouth.

1890 Wornum, George Porter, 58, Belsize park, Hampstead, N.W.

1876† Worts, Edwin, 6, Trinity street, Colchester.

1887† Wright, Charles James, Senior Surgeon to the Hospital for Women and Children, Leeds ; Professor of Midwifery to the Yorkshire College ; Lynton Villa, Virginia road, Leeds.

Elected

1888*†Wyatt-Smith, Frank, M.B., B.C.Cantab., British Hospital, Buenos Ayres.

1871 Yarrow, George Eugene, M.D., 26, Duncan terrace, Islington, N. *Council*, 1881-3.

1882*†Young, Charles Grove, M.D., Berbice, Sea road, Bexhill-on-Sea.

Number of Fellows 636

CONTENTS.

	PAGE
List of Officers for 1902	v
Standing Committees	vii, viii
List of Honorary Local Secretaries	viii
List of Past Presidents	ix
List of Referees of Papers for 1902	x
Trustees of the Society's Property	xi
List of Honorary Fellows	xi, xii
List of Ordinary Fellows	xiii
Contents	lv
List of Plates	lxi
List of Illustrations	lxii
Advertisement	lxiii
Hours of Attendance at Library	lxiii

January 2nd, 1901—

Sarcoma of the Stomach, shown by Dr. G. Ernest Herman 2

Large Uterus, with Cervical Fibroid, removed by Abdominal Hysterectomy by Doyen's Method, shown by Dr. Herbert R. Spencer . . 5

A Case of Congenital Cœlomic Cyst, shown by Dr. Cuthbert Lockyer 7

Uterus removed at Full Term by Intra-peritoneal Hysterectomy in a Case of Contracted Pelvis, shown by Dr. William Duncan 9

PAGE

Acute Torsion of an Ovarian Pedicle, from a Case where there was Chronic Torsion of the Pedicle of a Tumour of the Opposite Ovary, shown by Mr. ALBAN DORAN 12

I. Primary Ovarian Pregnancy with Rupture Fourteen Days after Last Menstruation, by Mr. G. P. ANNING and Mr. H. LITTLEWOOD (introduced by Dr. HERBERT R. SPENCER) 14

February 6th, 1901—

Death of Queen Victoria, loyal resolution . 21, 23

Annual Meeting 23

Uterine Appendages of the Left Side, showing evidences of the Rupture of the Sac of an Ovarian Pregnancy, shown by Mr. HASTINGS GILFORD (introduced by Mr. TARGETT) . . . 24

Report of Committee on Dr. E. O. Croft's Specimen of an Anomalous Case of Ectopic Pregnancy, probably Ovarian 24

Case of Fibro-myoma of Uterus showing Marked Cystic Degeneration, removed from a patient aged sixty-three, from whom both Ovaries had been removed Eleven Years before, shown by Dr. WALTER TATE 26

A New Pessary, shown by Dr. HUGHES R. DAVIES . 28

Annual Meeting—the Audited Report of the Treasurer (Dr. J. WATT BLACK) . . 28, 29

—— Report of the Honorary Librarian (Dr. HANDFIELD-JONES) 30

—— Report of the Chairman of the Board for the Examination of Midwives (Dr. BOULTON) . 31

Alteration in the Laws 33

Election of Officers and Council for the year 1901 . 33

Annual Address of the President (Mr. ALBAN DORAN) 35

March 6th, 1901—

Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube, shown by Dr. ROBERT BOXALL 71

Sarcoma of Uterus, shown by Dr. ARNOLD W. W. LEA 73

PAGE

Multiple Myxomatous Polypi from the Cervix Uteri, shown by Dr. WILLIAM DUNCAN . . 75

Uterine Fibroids removed by Intra-peritoneal Hysterectomy, shown by Dr. WILLIAM DUNCAN . 76

Uterus Bicornis Unicollis, shown by Dr. W. F. VICTOR BONNEY 77

Inaugural Address of the President (Dr. PETER HORROCKS) 79

April 3rd, 1901—

Case of Deciduoma Malignum, shown by the PRESIDENT (Dr. PETER HORROCKS) . . . 109

Cystic Fibro-myoma of the Uterus removed by Posterior Colpotomy, shown by Dr. HERBERT R. SPENCER 110

Microscopical Sections of the Kidneys from a fatal case of Puerperal Eclampsia, shown by Dr. H. R. ANDREWS 114

II. The Pathology and Treatment of Puerperal Eclampsia, with special reference to the use of Saline Transfusion (with notes of two cases), by Dr. E. W. HEY GROVES 117

May 1st, 1901—

Death of Queen Victoria—Letter from the Home Secretary 143

Report on Dr. Boxall's specimen of Cystic Fibroid with Carcinoma of the Left Ovary and the Right Fallopian Tube 144

Report on Dr. Arnold Lea's specimen of Sarcoma of the Uterus and Pelvic Cellular Tissue . . 145

Dermoid Cyst of Ovary obstructing Labour; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery, shown by Dr. J. M. MUNRO KERR 145

Transfusion Apparatus, shown by Dr. JENNINGS . 146

Case of ? Hydatidiform Cysts growing in the Vulva, shown by Lieut.-Colonel A. J. STURMER . . 148

PAGE

Adjourned Discussion on Dr. H. Groves's paper on the Pathology and Treatment of Puerperal Eclampsia, with special reference to treatment by Saline Transfusion 148

June 5th, 1901—

Decidual Uterine Cast expelled after eight weeks' Amenorrhœa, together with an ovum of almost five days' growth, shown by Dr. FOTHERGILL . . 162

Two Cases of Fœtal Ascites and Œdema, shown by Dr. HENRY R. ANDREWS 166

Suppurating Fibroid Tumour of the Uterus, shown by Mr. STANLEY BOYD, M.B. (introduced by Dr. AMAND ROUTH) 172

Pregnant Fibroid Uterus removed at the Fifth Month, shown by Mr. ALBAN DORAN . . . 178

III. Fibroid Tumours complicating Pregnancy and Labour, by Dr. ARCHIBALD DONALD . . 180

July 3rd, 1901—

Case of Endometritis Exfoliativa, shown by Dr. CUTHBERT LOCKYER 205

Cystic Corpus Luteum, shown by Dr. ALCOCK . 208

Carcinomatous Tumour of Ovary, shown by Dr. J. S. FAIRBAIRN 208

Tubal Mole, showing escape of the Body of the Embryo through the Fimbriated Opening, with Retention of the Head and Amniotic Cavity in the Tube, shown by Dr. J. S. FAIRBAIRN . 211

Carcinomatous Uterus removed Eighteen and a half Years subsequent to Double Ovariotomy, shown by Mr. BUTLER-SMYTHE 214

IV. On Spontaneous Rupture of the Uterus in Placenta Prævia, by Mr. J. PRESTON MAXWELL . . 217

October 2nd, 1901—

Large Ovarian Tumour ruptured on the third day after Labour, shown by Dr. HERBERT R. SPENCER 224

Subperitoneal Fibro-myoma, shown by Dr. GALABIN 225

Sarcoma of Uterus, shown by Dr. GALABIN . 226

PAGE

Subperitoneal Fibroma, shown by Dr. William Duncan 228
Sarcoma of Uterus, shown by Dr. William Duncan 228
Primary Melanotic Sarcoma of Ovary, shown by Dr. H. Russell Andrews 228
Fibro-myoma of the Ovary, shown by Dr. H. Russell Andrews 231
Volsella Forceps for the Soft Dilated Cervix, shown by Dr. Robert Wise 233
V. Leukæmia and Pregnancy, by Dr. G. Ernest Herman 234

November 6th, 1901—
On a Case of Gonorrhœal Pelvic Peritonitis, shown by Mr. J. Bland-Sutton 251
Tubal Mole with Encysted Hæmatocele, shown by Mr. Handley 255
Fibroid of Broad Ligament associated with an Ovarian Cyst, shown by Mr. Alban Doran . . 260
Uterus with Squamous Epithelioma of Cervix; removed in 1895; no recurrence in 1901, shown by Dr. Lewers 266
Papillomatous Cyst of an Accessory Ovary, shown by Dr. Galabin 267
Case of Fibro-myoma of Uterus complicated with Double Salpingitis and Carcinoma of Cervix, shown by Dr. Walter Tate 270
VI. Sloughing Fibroid of the Left Uterine Cornu; Abnormal Relations, by Mr. Alban Doran and Dr. Cuthbert Lockyer 272

December 4th, 1901—
Case of Deciduoma Malignum, shown by Dr. Horrocks 283
Notes on two Fatal Cases of Pernicious Vomiting in Pregnancy, by Dr. James L. Maxwell (introduced by Dr. W. S. A. Griffith) 288
Specimen of Tubal Abortion with Rupture of Tube, shown by Dr. Amand Routh 294
Person aged twenty-six, Uncertain Sex, shown by Dr. W. S. A. Griffith 298

PAGE

Pelvic Viscera showing Pseudo-hermaphroditism, shown by Dr. Hubert Roberts . . 298

Case of Orbital Tumour in a Hydrocephalic Female Fœtus, with Tumour of Cheek, Maldevelopment of Neck, associated with Hydramnion, necessitating interference with the Pregnancy at the seventh month, shown by Mr. Stannus (introduced by Dr. Walter Tate) 304

Septicæmic Uteri, with Bacteriological Investigation, shown by Dr. Cuthbert Lockyer . . 304

VII. A Case of Combined Vaginal and Abdominal Hysterectomy for a Pregnancy of four and a half months, complicated by Cancer of the Cervix. by Dr. Robert Sanderson 312

Index 321

Additions to the Library 341

PLATES.

PLATE — PAGE

I.—Congenital Cœlomic Cyst (Dr. Cuthbert Lockyer): Anterior view of the cyst, showing its anatomical relations to the various viscera . . 8

II.—Ditto ditto: Posterior view of the cyst, showing its anatomical relations to the various viscera, etc. . . 8

III.—Ditto ditto: Composite drawing of a section through the cyst wall, showing various layers . . . 8

IV.—Primary Ovarian Pregnancy with Rupture fourteen days after last Menstruation (Mr. Anning and Mr. Littlewood):
Fig. 1.—Ovary with ovum *in situ* surrounded by envelope of clot.
Fig. 2.—Chorionic villi.
Fig. 3.—Portion of ovarian wall of sac which contained ovum 16

V.—Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube (Dr. Boxall): Posterior view 72

VI.—Ditto ditto: Anterior view 72

VII.—Ditto ditto:
Fig. 1.—Primary carcinoma of the left ovary, microscopic section under a high power.
Fig. 2.—Secondary carcinoma of the right Fallopian tube, microscopic section under a high power 72

VIII.—Cystic Fibroid with Carcinoma of the Left Ovary and Right Fallopian Tube (Dr. Boxall); Secondary Carcinoma of the Right Fallopian Tube, microscopic section under a low power 72

IX.—Multiple Myxomatous Polypi from the Cervix Uteri (Dr. William Duncan) . . . 75

X.—Decidual Uterine Cast expelled after eight weeks' Amenorrhœa, together with an Ovum of about five days' growth (Dr. Fothergill).
Fig. 1.—Internal surface of cast.
Fig. 2.—Section of cast showing decidual cells, extravasated blood, and uterine glands, with remains of epithelium . . . 162

PLATE PAGE

XI.—Decidual Uterine Cast expelled after eight weeks' Amenorrhœa, together with an Ovum of about five days' growth (Dr. Fothergill).
Chorion and villi from ovum expelled with decidual cast 162

XII.—Pregnant Fibroid Uterus removed at the Fifth Month (Mr. Doran) 178

XIII.—Primary Melanotic Sarcoma of Ovary (Dr. H. Russell Andrews) 228

XIV.—Fibroid of the Broad Ligament associated with an Ovarian Cyst (Mr. Doran).
Fig. 1.—Showing the cut surface of the tumour . 263
Fig. 2.—Showing mucoid tissue with bundles of plain muscle-cells 263

XV.—Sloughing Fibroid of the Left Uterine Cornu; abnormal relations (Mr. Doran and Dr. Lockyer) . 278

XVI—XVIII.—Case of Deciduoma malignum (Dr. Horrocks):
Naked-eye appearance. The anterior half of the uterus has been removed, and the growth is seen at the upper part growing on the posterior wall and penetrating through the entire thickness of the muscular wall of the fundus 284
Microscopical Section of the Growing Edge of the Tumour (× 125):
a. Syncytium invading uterine muscle.
b. Discrete cells.
c. Muscular fibres of uterine wall.
d. Blood in an irregular space . . 284
Microscopical Section (× 365):
a. Syncytium forming in places an irregular network enclosing discrete cells.
b. Discrete cells.
c. Gradation between syncytium and discrete cells 284

ILLUSTRATION.

Tubal Abortion with Rupture of Tube (Dr. Amand Routh) 296

ADVERTISEMENT.

The Society is not as a body responsible for the facts and opinions which are advanced in the following papers and communications read, nor for those contained in the abstracts of the discussions which have occurred at the meetings during the Session.

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Hours of Attendance: Monday to Friday, 1.30 p.m. to 6 p.m.; Saturday, 9.30 a.m. to 2 p.m.; and in the evenings on which the Society meets, from 7.15 p.m. to 7.45 p.m.

AGNES HANNAM, F.R.S.L.,
Secretary and Librarian.

OBSTETRICAL SOCIETY

OF

LONDON.

SESSION 1901.

JANUARY 2ND, 1901.

ALBAN DORAN, F.R.C.S., President, in the Chair.

Present—33 Fellows and 6 visitors.

The President announced with regret the somewhat sudden death of Dr. J. B. Potter, which occurred three days previously.

Books were presented by Dr. Cullingworth and Dr. Engelmann.

Henry Heath Pochin Johnson, L.R.C.P., was admitted a Fellow of the Society.

Thomas William Shepherd, L.R.C.S. and L.M. (Launceston) was declared admitted.

The following gentleman was proposed for election :— Guy Bellingham Smith, M.B., B.S.Lond., F.R.C.S.

The following gentlemen were elected Fellows of the Society :—Hughes Reid Davies, M.R.C.S., L.R.C.P.Lond.; Harry Littlewood, F.R.C.S. (Leeds); Henry Higham Wigg, M.D.Brux. (Adelaide); F. J. I. Willey, M.B., B.S.

SARCOMA OF THE STOMACH.

Shown by G. Ernest Herman, M.B.Lond., F.R.C.P., F.R.C.S.

Dr. Herman showed this specimen mainly on occount of the clinical interest of the case. It was one of the rarer tumours that might be met with on opening the abdomen.

A patient, aged 60, had had four children, the last thirty-one years ago. Menstruation had ceased at the age of fifty. On July 17th, 1900, she was taken suddenly with acute pain in the region of the umbilicus, and became very faint. When seen shortly afterwards by Dr. Couper Cripps (of Camberwell Grove) she was considerably collapsed, the surface being covered with cold sweat, and the pulse feeble. She had, on March 29th, 1899, had a somewhat similar attack, and at that time Dr. Cripps found the liver enlarged, reaching about four inches and a half below the ribs. Between these two attacks the patient had not been seen by any doctor; but for nearly six months she had herself been aware of a lump in her abdomen. Dr. Cripps noticed the tumour for the first time on July 17th. The next day the patient had recovered from her symptoms, and was free from pain and tenderness. Dr. Cripps now made a drawing of

the tumour and measured it. Its diameter through the abdominal wall was five inches and a half. Dr. Herman saw the patient on July 20th, in consultation with Dr. Cripps.

She then had no pain. Appetite was good. She was not sick. She said she had wasted slightly.

The patient was fat. In the middle of the abdomen was a solid, lobulated, freely moveable tumour, as large as a fœtal head. There was dulness on percussion over and above it. It could not be pushed back into either loin. No pedicle connecting it with any pelvic organ could be felt. It was evidently not renal nor hepatic. It had no edge or notch like the spleen, and the splenic dulness was normal. It did not occur to Dr. Herman that it might be a sarcoma of the stomach. He thought it either a uterine fibroid or a solid ovarian tumour, the pedicle of which was greatly elongated or perhaps severed. Immediate operation was not advised; but it was recommended that the tumour should be watched, and removed if it grew rapidly or caused suffering.

The patient was fearful of further fainting attacks, and therefore was anxious to have the tumour removed.

On August 16th Dr. Herman, assisted by Dr. Cripps, removed the tumour. It was free in the abdomen, except where it was connected by a short pedicle with the greater curvature of the stomach in front of the omentum. The pedicle was oval in cross section, an inch and a half in its long diameter, an inch in its short one; its long diameter was parallel to the long axis of the stomach. It was friable, so that it was a little torn in ascertaining the relations of the tumour, and the tumour was easily detached by breaking off the pedicle from the stomach with the fingers. There was free oozing from the surface where it had been attached, which was checked by bringing the peritoneum at its edges together with catgut Lembert's suture.

The patient recovered without bad symptoms.

Dr. Herman had last seen her on October 5th; she

was then quite well. No tumour could be felt, and there was no enlargement of the liver.

The tumour has been examined by Dr. William Bullock, bacteriologist and teacher of pathological histology at the London Hospital. His report is as follows:—"The growth is fibromatous (fibroma molle) with myxomatous degeneration of the intercellular tissue, and in parts is very cellular, so as to approach what many would diagnose as a myxo-sarcoma, or myxo-fibro-sarcoma. The tumour-like mass measures four and a half inches across, and presents irregular enlargements and depressions. At one point was a pear-shaped cyst containing a mucoid fluid. On cutting into this it was found to communicate with other irregular cystic cavities. The cut surface of the mass is of a pale yellowish colour, and for the most part of elastic-like consistence. On microscopic section the growth was found to be composed of cells and intercellular tissue. The cells were in some cases oval, in others more or less triangular, and the growth as a whole contained a large number of these cells. The intercellular substance was composed of fine fibrils arranged into indistinct bundles in certain parts. At other places the intercellular substance was mucoid in character. In some of the sections distinct cellular depôts were observed. Large irregular endothelial-lined spaces were met with in all the sections, and were evidently dilated lymph-channels. On examining a considerable number of sections, it is evident that the growth is a myxomatous fibroma, or a myxomatous fibro-sarcoma. It is not possible to pronounce an absolute diagnosis as to whether the growth is a genuine sarcoma, as it seems to occupy a mid-position between a fibroma and a slightly cellular fibro-sarcoma."

A very similar case has been recorded by Tilger,* who states that he believed his case to be at the time unique. In this case the tumour was not so large as the one now exhibited. Tilger's paper contained a full account of the recorded cases of sarcoma of the stomach.

* 'Virchow's Archiv,' 1893, cxxxiii, p. 183.

Dr. Herbert Spencer had removed a cystic sarcoma of the great omentum, which before operation he had diagnosed as an ovarian tumour. The tumour filled the whole abdomen. The patient did well, and had a child a year later, but the subsequent history was not known.

LARGE UTERUS, WITH CERVICAL FIBROID, REMOVED BY ABDOMINAL HYSTERECTOMY BY DOYEN'S METHOD.

Shown by Herbert R. Spencer, M.D., F.R.C.P.

The uterus weighed 8 lbs. 15 oz. The patient, now aged 37, had been seen six years previously. The uterus at that time contained a fibroid involving the right side of the cervix, and extended into the abdomen to a height of five and a quarter inches above the pubes.

Menstruation commenced at thirteen and was always regular, at first every four weeks, afterwards every three weeks. The patient used fifteen diapers each time, and since she was first seen, six years ago, she had had pain at the onset of menstruation.

She was seen in November, 1900, on account of a smart hæmorrhage which had occurred three weeks previously, and had left her somewhat anæmic.

The uterus was now of the size of the pregnant organ at eight months, and the right side of the cervix was occupied by a growth (of which the lower end was as large as the fist) which bled on examination and was fixed. As the tumour was in evident danger of sloughing, it was decided to perform abdominal hysterectomy.

The operation was performed by Dr. Spencer on December 1st, 1900. It was found very difficult to deliver the tumour through an incision about nine inches in length. The peritoneum was raised up by the tumour burrowing beneath it to a height of about five inches

above the pubes. The round ligaments were tied in two places and cut between the ligatures, and the incision was carried across above the bladder, which was peeled down. The tumour remained absolutely fixed, in part by the great extent of the pelvic portion, and in part, apparently, by old inflammatory thickening around it. There were very large vessels in each broad ligament, and a ligature needle passed very deeply, so as to avoid these, perforated a deep vein, and led to a smart gush of blood, which was controlled by the fingers of an assistant and a large pair of forceps. As it appeared that the patient would die of hæmorrhage if the usual method of removing the uterus were adopted, Doyen's method was employed. It was impossible to reach the posterior fornix by the vagina, owing to the large mass in the cervix. Accordingly an incision was made into the posterior vagina from above, and after enlarging the opening the cervix was seized with the hand and dragged up, and the uterus removed from below upwards with the knife, which was kept with its edge towards the uterus. The uterus was thus removed without difficulty and without tying the vessels in the broad ligament, and with very little loss of blood. The vessels were then separately tied with silk, and the peritoneum closed over a strip of iodoform gauze, which was passed down into the vagina and was removed on the sixth day. The patient recovered well. The highest temperature was 101° on the fifth day.

The patient left the hospital well on December 27th, 1900.

Dr. Spencer remarked that with an experience of various methods of removing the uterus, he was of opinion that there were only two methods known to him which would permit the safe removal of a large, burrowing, fixed, and very vascular tumour, such as the one he exhibited, namely, Doyen's method, and bisection of the uterus.

Dr. Herbert Spencer, in reply to some remarks, said he

agreed with the President, that Doyen's operation was much easier when the cervix was not involved. Enucleation was carried out from above as far as possible, but the tumour remained fixed, and he believed that further operation from above would have led to fatal hæmorrhage. He hoped Dr. Duncan would give Doyen's operation a trial, for it was in his (Dr. Spencer's) opinion greatly superior to the supra-vaginal amputation in such a case as he had described.

A CASE OF CONGENITAL CŒLOMIC CYST.

By Cuthbert Lockyer, M.D., B.S., M.R.C.P., F.R.C.S.

(See Plates I, II, III).

Dr. Cuthbert Lockyer showed a specimen consisting of a large cyst which occupied the posterior mediastinum and the greater part of the abdominal cavity of a male infant at birth. This infant was born at full term, lived five days, and was well formed and nourished externally; anus perforate; passed meconium, but took no nourishment, and was not known to pass either fæces or urine. Delivery rapid (one and a half hours), without aid. The mother, aged 40, was twice married; three healthy children by first husband, seven children by second marriage; of these the second was born at eighth month and died twenty-eight hours after birth; had a cranial deformity of some kind. The fourth, a seven months' child, was born dead and cyanosed. The fifth had congenital heart disease and lived sixteen months. The specimen shown by Dr. Lockyer was removed from the seventh child two days after death and a week after birth. This was on June 10th of last year. The mother is now (January, 1901) pregnant again. A maternal aunt has borne children with congenital defects (meningocele, etc.).

At the post-mortem examination, on opening the abdomen a large, thin-walled cyst concealed all else from

view, and it overlapped the pubes when released from the support of the anterior abdominal wall. The cyst lay between the layers of the great omentum as far as its larger portion was concerned, but it sent a diverticulum to the gate of the liver, which process lay in front of the first and second portions of the duodenum; a second elongated process extended from the main cyst and ran along the great curve of the stomach to, and through the œsophageal opening in the diaphragm, ascending as high as the fourth dorsal vertebra in the posterior mediastinum, where it ended in a cæcal extremity. The colon lay entirely to the right of the cyst (see Plates I, II), there being no part of the large bowel lying transversely. The cyst was shown entire, and in its anatomical relationship to surrounding viscera and peritoneum. The pancreas lay behind the cyst and free from it. Six spleniculi were attached by a short mesentery to the elongated diverticulum. The lobulated kidneys, adrenals, and ureters lay behind the cyst. The stomach was overlapped on its greater convexity (*vide* Plates) by cyst and its processes.

At no point was the cyst in communication with the alimentary tract; but where the diverticulum was opposed to the greater curvature the walls of both stomach and cyst were fused to a thin, impervious septum at one point, suggesting a previous opening.

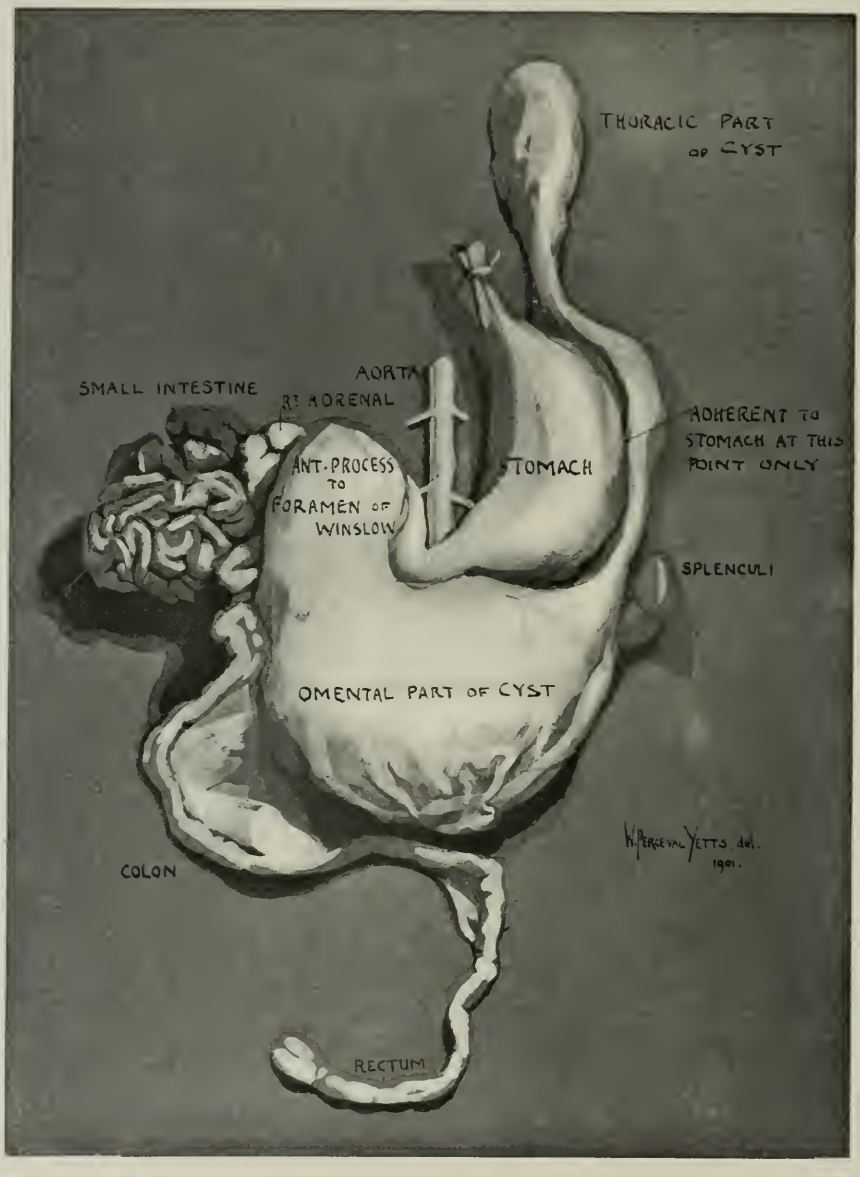
On section the cyst wall was of variable thickness (one to three lines); the thicker portions showed a rugose, the thinner a smooth lining.

The microscopic sections of the cyst wall (*vide* Plate III) showed a mimicry of skin and alimentary wall combined, presenting the following layers:

(1) Epithelial { Stratum corneum. ,, lucidum. ,, granulosum.

(2) Connective tissue with large vessels.

(3) Thick layer of involuntary muscle cut in section transversely.



Illustrating Dr. CUTHBERT LOCKYER's specimen of congenital cœlomic cyst.

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DESCRIPTION OF PLATE I.

Illustrating Dr. Cuthbert Lockyer's specimen of Congenital Cœlomic Cyst.

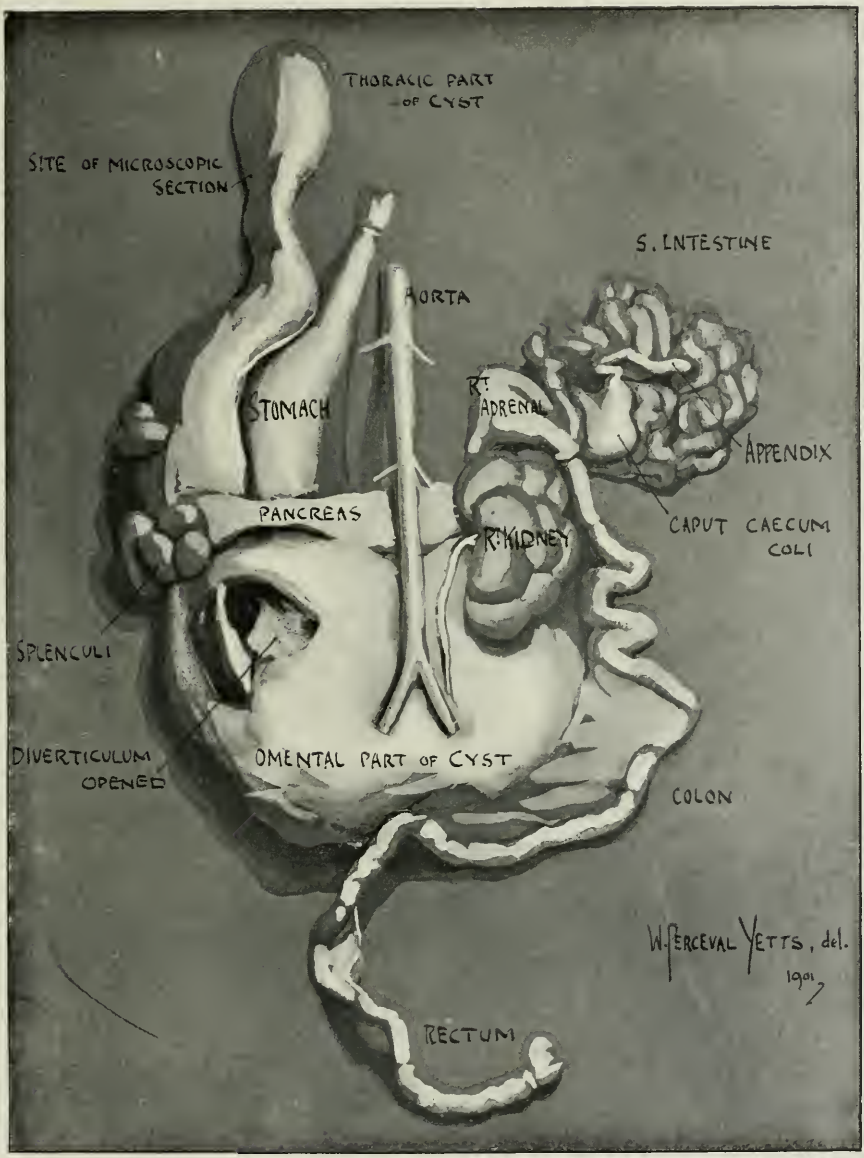
Anterior view of the cyst, showing its anatomical relations to the various viscera.

DESCRIPTION OF PLATE II.

Illustrating Dr. Cuthbert Lockyer's specimen of Congenital Cœlomic Cyst.

Posterior view of the cyst, showing its anatomical relations to the various viscera, etc.

The left kidney and adrenal have been left out in the drawing in order to show the tail of the pancreas and the four lower spleniculi.



Illustrating Dr. CUTHBERT LOCKYER's specimen of congenital cœlomic cyst.

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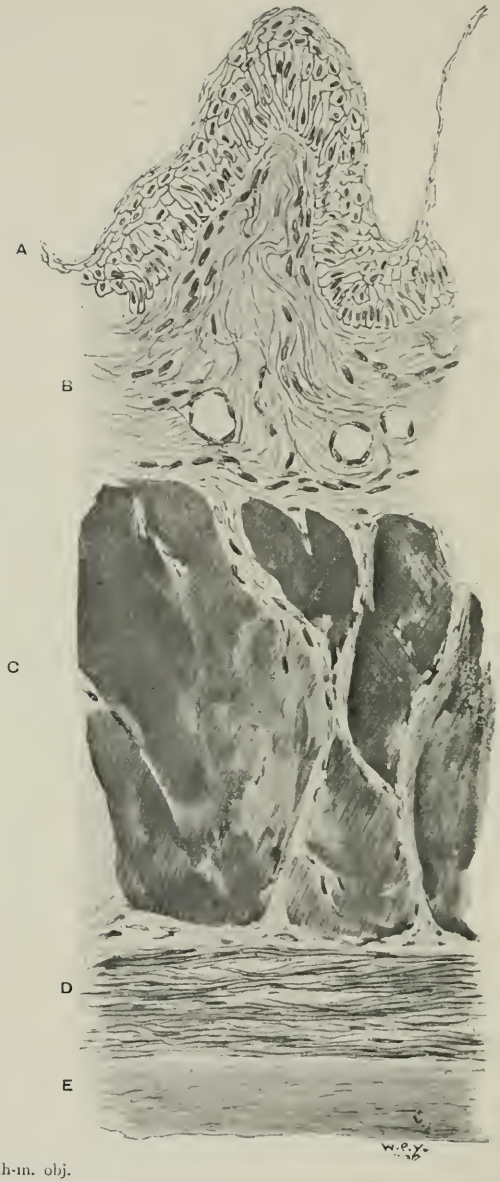

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Illustrating Dr. CUTHBERT LOCKYER'S specimen of congenital cœlomic cyst.

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DESCRIPTION OF PLATE III.

Illustrating Dr. Cuthbert Lockyer's specimen of Congenital Cœlomic Cyst.

This is a composite drawing of a section through the cyst wall, showing the following layers:

a. Epithelial layer.
b. Connective-tissue layer with blood-vessels cut transversely
c. Layer of muscle cut transversely.
d. Layer of muscle cut longitudinally.
e. Layer of thickened peritoneum.

(4) Thinner layer of involuntary muscle cut in section longitudinally.

(5) Peritoneum.

Such a structure, Dr. Lockyer thought, suggested for the cyst an origin as an outgrowth from the early alimentary tract into the early meso, possibly meso-gastrium. In other words, it seemed homologous to thyroid, lungs, pancreas, liver, and bile-duct, all of which arise as buds from the alimentary tract. Where the initial budding occurred was a matter of some speculation, but inasmuch as it was quite free from the perfected alimentary tract, with the exception of the small area above referred to as fused with the stomach, it might be that the budding occurred at this point. The relation to peritoneum, moreover, showed clearly that the cyst lay in the same morphological plane as the stomach, and rest of the alimentary tract, and lent support to the theory that it arose therefrom (*vide* fig. 125, p. 105, vol. i, pt. i, 'Quain's Anatomy').

For clinical notes Dr. Lockyer is indebted to Dr. Powell Evans, of Wimbledon, from whose practice the specimen was obtained.

The PRESIDENT observed that he had described a case of cyst of the great omentum, illustrated by a diagram, twenty years ago ('Transactions,' vol. xxiii, p. 164).

UTERUS REMOVED AT FULL TERM BY INTRA-PERITONEAL HYSTERECTOMY IN A CASE OF CONTRACTED PELVIS.

Shown by Dr. W. DUNCAN.

DR. DUNCAN stated that the patient from whom the uterus was removed was a multipara, aged 30, who had been married nine years and been pregnant seven

times; her deliveries were as follows:—first, at term by cephalotripsy; second and third, by abortion at two and a half months; fourth, premature labour at seventh month, delivery by craniotomy; fifth, abortion at third month; sixth, delivery by cephalotripsy at eighth month. In her last (seventh) pregnancy, as she was very anxious to have a living child, she was sent to Dr. Duncan by her medical man, Dr. Bremner, when she was in her seventh month.

On examination she was a woman four feet five and a quarter inches in height, with well-marked evidences of rickets in the legs; the pelvic measurements were as follows:

Between anterior superior iliac spines .	$8\frac{3}{4}$	inches.
,, widest points of crista ilii .	$9\frac{1}{4}$	,,
,, tuber ischii	3	,,
Diagonal conjugate	3	,,

She was advised to go to full term and then to have the child saved by operation; to this she readily agreed.

Dr. Duncan decided to perform intra-peritoneal hysterectomy after removing the child, rather than to perform ordinary Cæsarean section, as he considered the risk to the mother decidedly less after the former operation.

The operation on this patient was performed at full term in the ordinary manner; one ovary was left. The placenta was situated anteriorly, and consequently cut through in opening the uterus. The child (a male) cried lustily on delivery. The mother recovered without a bad symptom of any kind; her temperature never went above 99° F., or her pulse above 84.

The PRESIDENT observed that Dr. John Phillips had shown in his article on the "Treatment of Pregnancy and Labour complicated by Fibro-myoma" in the sixth volume of the 'King's College Hospital Reports,' that myoma of the uterus, except when favourably placed, was a very grave complication of labour. He himself found that retro-peritoneal hysterectomy answered best, at least before term. That was the case in his own practice, and recently reported cases by McMurtry, Tauffer, Keiffer, and Horrocks, showed the advantages of this operation.

Dr. Herman agreed with Dr. Duncan that when there was obstruction to delivery so great as to make the delivery of a living child impossible, the best practice, if the patient was to be sterilised, was to perform Cæsarean section, and then to amputate the body of the uterus at the internal os, leaving behind one or both ovaries. In the last two Cæsarean sections that he (Dr. Herman) had performed in the London Hospital, one for pelvic contraction, the other for obstruction by a fibroid, he had followed this course. Both cases had done well. He removed the body of the uterus, not because he thought it was any easier or safer to stitch the cervical stump than it was to stitch the body of the uterus, but because, if the patient was not to bear more children, the body of the uterus was a useless, superfluous organ, causing an annoying monthly illness, and liable to disease; and therefore the patient was better without it. He thought that if a patient could not have a child without incurring the danger of Cæsarean section, she was entitled to ask to be sterilised. But if she did not wish to be sterilised, the uterine wound should be sewn up.

Dr. Walter Griffith observed that the choice between Cæsarean section and hysterectomy in cases of greatly contracted pelvis was the main one of relative risk; if the results of hysterectomy proved to be as good as, or better than those of Cæsarean section alone, he would not hesitate to prefer that operation, because it was obviously right to sterilise the patient at the same time; but in the cases of minor contraction, where a living child could be obtained by induction of premature labour, it was not usually right to sterilise the patient, nor necessary to remove the uterus.

Dr. Galabin said that as tying the tubes had been mentioned as the method for sterilising the patient in the performance of Cæsarean section, he thought it ought to be generally known that this was not reliable. He had met with two cases in which pregnancy had occurred. Notwithstanding in the first instance he had tied the tubes himself with kangaroo tendon, pregnancy occurred again and abortion was induced. In the second the tubes had been tied by another surgeon with fishing gut; pregnancy recurred, the uterus ruptured along the line of suture, and fœtus and placenta escaped. One tube was divided by the ligature and occluded, in the other the ligature remained *in situ*. Since this case he had always, when sterilisation was called for in Cæsarean section, cut a piece out of the tube, excising the mucous membrane more deeply than the muscular wall. He believed that this could be relied upon to sterilise.

Dr. Amand Routh referred to a recent discussion on the relative values of Cæsarean section and intra-peritoneal hysterectomy. He thought the question turned upon two points, first, the desirability of sterilisation of the patient, which in

cases of contracted pelvis might be left to the patient's own decision; secondly, the risks of the two operations as regards the after-history. He thought that, excluding the danger arising from the sutures of the uterine stump becoming septic, the after-risks and accidents were much greater in the case of Cæsarean section. Assuming that the mortality statistics were about equal for the two operations, he thought these after-risks made intra-peritoneal hysterectomy the more desirable operation.

Dr. Duncan, in reply, said he could not agree with some of the speakers that after Cæsarean section the cut surfaces of the uterus could be kept in perfect apposition if the sutures were carefully inserted; for no matter whether silk or silver was used, the uterus by its alternate contractions and relaxations was bound to alter the tightness of the sutures, and hence might permit of leakage of the lochia into the peritoneal cavity with fatal result. He considered that in cancer of the uterus the best chance for the patient was by performing a Porro's operation, whereby the stump of the uterus was brought outside the abdomen, and the offensive septic matter from the cancerous growth was less likely to infect the peritoneum. In most of his cases of Cæsarean section, as well as in the majority of those recorded by other operators, the placenta was found to be situated anteriorly, and this was a curious fact, as it is generally laid down that in the majority of the cases of pregnancy the placenta is attached to the posterior wall. He quite agreed with Dr. Routh, that the mortality after hysterectomy was at least as small as after Cæsarean section, and that the accidents likely to occur were less.

ACUTE TORSION OF AN OVARIAN PEDICLE; FROM A CASE WHERE THERE WAS CHRONIC TORSION OF THE PEDICLE OF A TUMOUR OF THE OPPOSITE OVARY.

By Alban Doran, F.R.C.S.

This specimen showed the result of very acute torsion of the pedicle of a cyst of the right ovary. It took place after an action of the bowels, about twenty-eight

hours before operation, and was indicated by violent abdominal pain, tenderness of the tumour, and vomiting. There was also a cyst of the left ovary, with a history of chronic torsion; it had for long been tender on touch.

At the operation the right pedicle was found firmly twisted for two turns and very œdematous. Its veins were greatly dilated. The left pedicle was lightly twisted two turns and atrophied. A full report of the case is published in the 'British Medical Journal,' vol. ii, 1900, p. 75.

In this specimen the right ovarian cyst was seen laid open; its walls were deeply congested, showing ecchymoses. The broad ligament contained a large hæmatoma, and another hæmatoma lay in the substance of the greatly hypertrophied ovarian ligament. Convalescence was rapid. This specimen was preserved in the Museum of the Royal College of Surgeons.

Both tumours were dermoids.

PRIMARY OVARIAN PREGNANCY WITH RUPTURE FOURTEEN DAYS AFTER LAST MENSTRUATION.

(See Plate IV.)

By G. P. Anning and H. Littlewood (introduced by Dr. Herbert Spencer).

(Received December 3rd, 1900.)

(*Abstract.*)

Patient aged 28 years, married five months, no previous pregnancy. Menstruation usually normal.

She was operated on on August 27th, 1900, for a ruptured ectopic gestation, about thirty-six hours after the rupture. About two pints of blood and clots were removed; a small ovum was found. This fitted into a firm envelope composed of laminated clot. There was a rent in the right ovary, leading to a cavity, which contained some blood; into this the ovum and its sac exactly fitted, clearly indicating the primary ovarian origin of the pregnancy. The right tube was removed, and showed the evidence of rupture. The left tube was examined and found normal. Cystic portion of left ovary removed.

The patient made a good recovery.

The specimens will be shown, with microscope specimens of the ovum, the sac, and a portion of the ovarian wall.

We are venturing to read these short notes before the Obstetrical Society of a case of what we believe to be an undoubted example of ovarian pregnancy, as we think it is of great importance, and will help to prove that such

a remarkable condition as a primary ovarian pregnancy does at least sometimes occur.

History.—Patient, aged 28, married five months, no previous pregnancy. Menstruation usually normal, unaccompanied by pain, and unassociated with menorrhagia.

On August 10th, 1900, considerable pain was felt in both ovarian regions, followed the next day by menstruation and subsidence of pain; the period lasted three days, *i. e.* until the 13th inst.

There is a history of sudden pain on the 23rd inst. which was both severe and sharp, affecting primarily the right ovarian region, but being referred downwards into the vagina. This had entirely disappeared on August 25th, but during the afternoon, when out walking, excruciating pain came on in the lower part of her body, together with retention of urine. The same evening I saw her for the first time.

Present condition.—In the right iliac region she complained of pain; it was not acute but persistent, and extended into the vagina. Abdominal respirations were unhampered; the general contour of the abdomen appeared normal.

Nothing was felt on palpation, although slight tenderness could be elicited, which was insufficient to render the muscles rigid. Vomiting had not occurred. Pulse good, 80 per minute. Temperature normal.

The next morning, August 26th, her *symptoms* were unaltered. There was, however, some slight fulness low down in the right iliac fossa, and palpation caused much tenderness at the position of the internal abdominal ring.

Vaginal examination was painful. The right lateral fornix bulged slightly. No noticeable dislocation of the cervix.

Rectal examination also painful; nothing further elucidated. Temperature and pulse as on the previous evening. After this examination I suggested to the husband the

possibility of this being an early pregnancy occurring in an abnormal position.

Fourteen hours later I saw her again. She had vomited twice, and for three hours the character of her symptoms had been much more severe.

The lower zone of the abdomen as high as the umbilicus was uniformly distended, and the usual signs of the fluid were present. There was much collapse, but the pulse rate had only increased to 100 per minute.

Mr. Littlewood was asked to see the case, and, agreeing with the diagnosis, performed laparotomy at 3 a.m. on August 27th, 1900. On opening the abdomen, blood welled up from the pelvis. After removing a quantity of blood and clots, some bleeding appeared to be coming from the right appendages, so these were clamped, subsequently ligatured, and removed. This completely controlled the hæmorrhage. Before removal a rent in the ovary was noticed; this at the time was thought to have been produced by a rupture of a small cyst. The left appendages were then examined; the tube was normal in appearance, but the ovary contained some small cysts; the cystic portion was removed. The remainder of blood and clots were now removed from the peritoneum and the abdomen closed. During the removal of the blood, which amounted to a quart, a small impregnated ovum was found; it was easily discernible among the clots owing to its flesh-pink colour, without which characteristic so small an ovum might well have remained undetected. Its size before its villi had drooped was equal to that of a large pea.

The woman's convalescence was uneventful, and at the present time she is quite well.

For the first fortnight after the operation she had a sanguineous uterine discharge, but no shreds were found in it. When this ceased she remained perfectly free for four weeks, when she menstruated, the cycle lasting three days, and has since menstruated regularly.

Account of the specimen.—The clots were saved, and

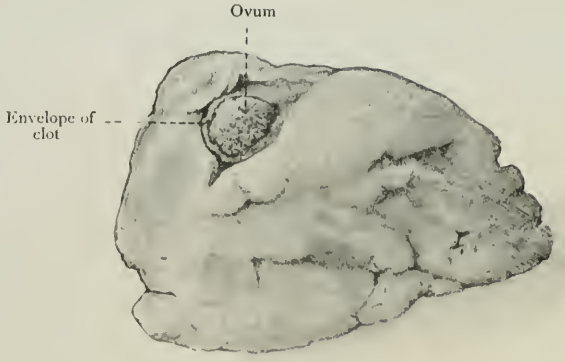

Fig. 1.—Ovary with ovum *in situ* surrounded by envelope of clot.

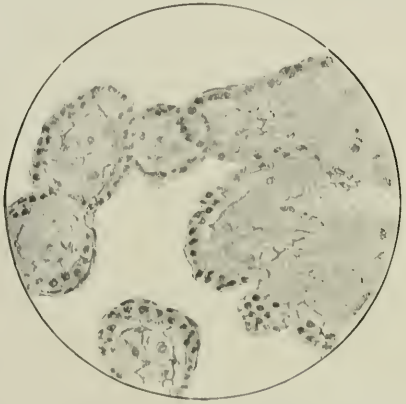

Fig. 2.—Chorionic villi.

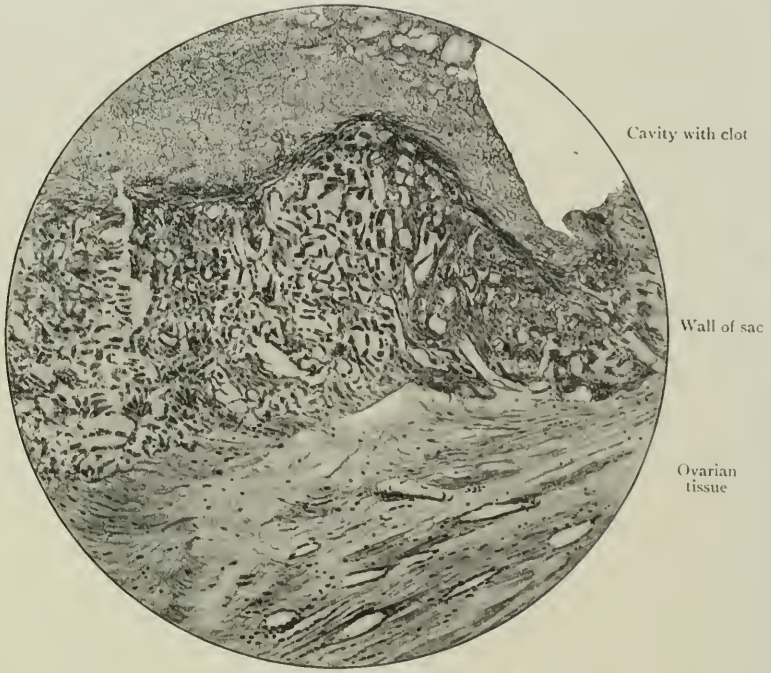

Fig. 3.—Portion of ovarian wall of sac which contained ovum.

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DESCRIPTION OF PLATE IV.

Illustrating Mr. Anning and Mr. Littlewood's paper on "Primary Ovarian Pregnancy with Rupture fourteen days after last Menstruation."

Fig. 1.—Ovary with ovum *in situ* surrounded by envelope of clot.

Fig. 2.—Chorionic villi.

Fig. 3.—Portion of ovarian wall of sac which contained ovum.

on carefully examining the mass a firm envelope was found, apparently comprised of laminated blood-clot. It resembled descriptively, in size and shape, a small Barcelona nut which had been opened into. The ovum exactly fitted into this, its envelope; and the rupture in the envelope was thought to be due to the escape of the ovum (*vide* Plate IV, fig. 1).

The Fallopian tube showed no flaw, the fimbriæ were loosely attached to the surface of the ovary, and the ostium looked normal. A few small cysts were noticed in the ovary which had a three quarter of an inch rent along its free border, the lips of which were thinned and overlapped. On drawing these aside a cavity was brought into view lined in part with laminated clot; into this cavity the ovum with its envelope exactly fitted. In naked-eye appearance the texture of the laminated envelope was identical with a portion of the wall of the cavity in the ovary.

The following is a copy of the Pathologist's report on the specimen, for which our thanks are due to Mr. P. J. Cammidge, Pathologist to the Leeds General Infirmary.

Microscopically the villi covering the ovum are oval or round on section, and present the typical structure of chorionic villi (Plate IV, fig. 2). The layer of dark brown material intervening between the ovum and the cyst in which it lies, consists merely of dense blood-clot, and sections of the cyst wall itself taken from the ovarian side show the structure characteristic of a corpus luteum (fig. 3).

The conclusions arrived at from this case are:

1. That in an ovary about the normal size which is certainly cystic, impregnation of an ovum had occurred; that its site bore definite relationship to a corpus luteum.

2. That the ovum, complete in its chorionic membrane, was discharged by the rupture of the ovary into the general peritoneal cavity.

3. That the ovum was about fourteen days old.

Mr. Bland-Sutton remarked that belief in ovarian pregnancy could be traced back more than two centuries, but a critical

examination of recorded cases showed that in some instances the supposed ovarian fœtus was in reality a dermoid, and in others a sequestered fœtus (lithopædion) in the broad ligament. In a few instances the account of the dissection is so careful and circumstantial as to leave the impression that the formation of the embryo in the ovary could not be denied. It must also be borne in mind that the modern cases prior to 1899 rest upon no safer evidence than the non-detection of the ovary during an operation, or upon the post-mortem examination of a person with an advanced extra-uterine gestation. Even such a careful and judicious writer as Dr. Farre did not deny the possibility of a spermatozoon entering an ovarian follicle, but he denied that any case of ovarian gestation had been satisfactorily proved. Mr. Bland-Sutton came to the same conclusion, after a study of a much larger number of specimens than were available to Dr. Farre, and with the advantage of modern methods of histological research. His (Mr. Bland-Sutton's) investigations have been particularly directed to the very early stages, for he urged as a postulate, that if the ovum is really capable of being fertilised in its follicle, "an early embryo in its membranes contained in a sac in the ovary" should be forthcoming. (This should be regarded as a postulate, and when rigidly satisfied would dispel the doubts.) He was convinced that the specimen now before the Society was an example of early ovarian pregnancy; the only possible objection that could be raised to this view of its nature depended on the fact that the authors of the paper had not taken any steps to prove that the "mole" had not been ejected through the cœlomic ostium of the tube (tubal abortion). Mr. Bland-Sutton would not press this objection, because he had sections of a more complete specimen, which quite satisfied him that an ovum could be fertilised whilst in its follicle. Dr. Anning and Mr. Littlewood were entitled to and would receive the best thanks of the Obstetrical Society for their kindness and energy in coming from Leeds and recording such a valuable case—one, indeed, that would become historic—before it; but he (Mr. Bland-Sutton) had made a much longer journey, and since the last meeting of the Society had visited Amsterdam, and through the courtesy of Dr. Catherine van Tussenbroek had been able to see the early example of ovarian pregnancy described by her (in the 'Annales de Gynécologie,' December, 1899), and had brought back sections which would be available for inspection by any Fellow of the Society who wished to examine them. There are a few features particularly worth mention in connection with this important case. The condition of the parts is exactly analogous to that of a tubal mole, so that for convenience of reference we shall have to speak of it as an "ovarian mole;" the blood-corpuscles in the vessels of the villi are

nucleated; there is no trace of a decidua in the ovarian follicle, and it is an interesting fact that in the clinical report of the case it is stated that a decidua had formed in the uterus, and a few days after the operation was discharged with the "douleurs d'accouchement." Mr. Bland-Sutton further stated that he had always been candid in his expressions of doubt regarding the older cases of alleged ovarian pregnancy, and had set them aside as "false facts," inasmuch as they could not be again brought under observation and re-examination in the light of new knowledge, hence his persistent request, that the postulate in regard to the presence of *an early embryo in a sac inside the ovary* should be satisfied, was not the outcome of a carping spirit, such as "certain scribes and Pharisees" manifested when they asked the Author of the Sermon on the Mount for a sign, but as furnishing incontestable evidence that spermatozoa could penetrate an ovarian follicle and convert an ovum into an oösperm. Another matter profoundly interesting to him is the fact that the "mole" with its chorionic villi, which had become the criterion for many cases of early tubal pregnancy, seemed likely, from this specimen, to become the criterion of early ovarian pregnancy also; and a large field of inquiry had thus been opened, for the condition known as blood-cyst of the ovary will now require very careful investigation in the new light afforded by this remarkable and epoch-making specimen.

Dr. Galabin thought that the Society might be congratulated that this much-controverted question could now be considered finally settled, since Mr. Bland-Sutton was converted. He had always believed in the possibility of both ovarian and primary abdominal pregnancy, and thought that those who denied it had gone upon an *a priori* assumption that the tube was the only structure besides the uterus which could give primary attachment to the ovum. He had not himself met with a case of ovarian pregnancy, but believed that he had met with one of primary abdominal pregnancy, which was presented to this Society, and reported on by a Committee as being probably of that nature. The Committee inserted the word "probably" because no one could prove in any case of apparently primary abdominal pregnancy that the ovum had not been first implanted in the tube and expelled by tubal abortion. But if an ovum damaged by such a detachment could attach itself, *a priori* a fresh undamaged ovum could do so. In the particular case referred to, the fœtal sac appeared at first sight subperitoneal, being covered in by a membrane smooth on its outward surface, which he believed to be a decidua reflexa. If so, he thought the ovum could not have been detached from the tube, since a decidua reflexa could only be formed when the ovum was minute.

Dr. Walter Griffith was glad that Mr. Bland-Sutton had

been converted by Mlle. van Tussenbroek's specimen. Her own ample description of it, and the drawings of the microscopic and the other sections had convinced Dr. Griffith, and he would be very glad to see the sections from Amsterdam. All who had heard of the specimen at Leeds had been looking forward with the keenest interest to seeing it that evening, and all Fellows would appreciate the fact that such an historical specimen had been presented at the Society.

Mr. Littlewood thanked the Society for the kind manner in which they had received the communication. He thought the case clearly proved the possibility of a primary ovarian pregnancy, and was glad to have had the opportunity of bringing the specimens to the first meeting of the Obstetrical Society in the new century. He thought the Society was greatly indebted to Mr. Bland-Sutton for having gone to Amsterdam and for bringing the specimens he had shown.

The President referred to his own analysis of cases of alleged primary ovarian pregnancy published in the thirty-fifth volume of the Society's 'Transactions' (p. 222). In both Sänger and Leopold's specimens there was a lithopædion, and, as might be expected, the relation of the sac to the Fallopian tube could no longer be accurately determined. In Herzfeld's and many other cases, the fact of the tube being intact was erroneously taken for proof that the pregnancy could not have begun in its canal. But Patenko's case seemed more probably genuine. In Dr. Croft's case the evidence was strong, but the pregnancy was somewhat advanced. Mr. Bland-Sutton deserved credit for the trouble he had taken to make sure about Van Tussenbroek's case, which seemed to offer almost conclusive evidence of primary ovarian pregnancy. The same might be said of Mr. Anning and Mr. Littlewood's case. The President suspected that these primary ovarian pregnancies aborted and broke down early, as seen in Patenko's specimen. Late ectopic gestations could generally be explained as developments, more or less evident, from a tubal sac.

Mr. G. P. Anning, in reply, thanked the Fellows of the Society for the kind way in which the paper had been received. He expressed his pleasure that Mr. Littlewood and himself had had the opportunity of showing a specimen of such extreme interest and importance before the Society, and felt that it had proved conclusively in England the right to classify "primary ovarian pregnancy" among the varieties of ectopic gestation. He wished also to express his indebtedness to Mr. F. T. Talbot for the careful drawings he had made of the specimens.

OBSTETRICAL SOCIETY OF LONDON.

To

The King's Most Excellent Majesty.

MOST GRACIOUS SOVEREIGN,

We, the President and Fellows of the Obstetrical Society of London, humbly beg to express our sincere sorrow at the death of our beloved Queen, and further beg to tender to the Royal Family our deep sympathy, and to your Majesty the assurance of our devotion to the Throne.

(Signed) ALBAN DORAN, President.

HERBERT R. SPENCER, } Hon.
AMAND ROUTH, } Secs.

ANNUAL MEETING.

FEBRUARY 6TH, 1901.

ALBAN DORAN, F.R.C.S., President, in the Chair.

Present—49 Fellows and 6 visitors.

DEATH OF QUEEN VICTORIA.

The PRESIDENT opened the meeting by referring to the great loss which the nation had sustained, and submitted to the meeting a loyal address to the King, prepared by the Council (p. 21). The meeting unanimously resolved that the address be submitted to His Majesty.

Books were presented by Dr. Dawson Williams, St. Bartholomew's Hospital Staff, the Radcliffe Librarian, and Professor von Winckel.

James Sherran, L.R.C.P.Lond.; Hughes Reid Davies, L.R.C.P.Lond.; William Aitken Macleod, M.B., C.M.Edin.; and Henry Higham Wigg, M.D., were admitted Fellows of the Society.

Harry Littlewood, F.R.C.S.(Leeds), was declared admitted.

The following gentlemen were proposed for election:—Reginald Courtney Gayer, L.R.C.P; William Sampson Handley, M.S., M.D.Lond., F.R.C.S.Eng.; Edward Angus Johnson, M.B., B.S.Melb., L.R.C.P.Lond.; Timothy Leahy-Lynch, L.R.C.P., L.M.Edin.; Llewellyn Powell, M.B., B.C.Cantab.; James Hutchinson Swanton, M.D., M.Ch.; Thomas George Wilson, M.B., Ch.M.Sydney, F.R.C.S.Edin.

Guy Bellingham Smith, M.B., B.S.Lond., F.R.C.S., was elected a Fellow.

UTERINE APPENDAGES OF THE LEFT SIDE SHOWING EVIDENCES OF THE RUPTURE OF THE SAC OF AN OVARIAN PREGNANCY.

Shown by Hastings Gilford, F.R.C.S. (introduced by Mr. Targett).

An account of the case had been published in the 'Lancet' of June 24th, 1899, Case 4.

A committee consisting of Drs. Eden, Hubert Roberts, and Messrs. Bland-Sutton and Targett was appointed to consider and report upon the specimen.

Report of Committee on Dr. E. O. Croft's Specimen of an Anomalous Case of Ectopic Pregnancy, probably Ovarian (see Vol. XLII, p. 316).

We, the undersigned, have met this day, and, after examining the specimen named above, have drawn up and signed the following Report:

The specimen consists of an oval mass (the gestation sac) in connection with the right uterine appendages. The right Fallopian tube is normal, showing neither dilatation nor thickening. Its abdominal ostium is patent and not dilated, and the ovarian fimbria joins the wall of the oval mass. The mesosalpinx is also normal, except for the presence of a very small cyst, probably connected with one of the vertical tubules of the par-ovarium. The oval mass occupies the site of the right ovary, and measures $3\frac{1}{2}$ inches in its longest and $2\frac{1}{2}$ inches and $1\frac{3}{4}$ inches in its shorter diameters.

Viewed from behind, ovarian tissue can be traced with the naked eye by means of small dilated Graafian follicles over a considerable area of the posterior surface of the sac,

and also over its outer pole; this is confirmed by microscopic examination of the same parts. In front are seen small lacerations of the surface, through which chorionic villi protrude. The inner pole forms a bulging portion, the surface of which is smooth, and covered with a thin membrane, in which no evidence of the presence of ovarian tissue can be found on microscopic examination.

The left appendages are normal. The posterior surface of the uterus is shaggy from torn adhesions. The fœtus, a female, measures 125 mm. in length.

We are of opinion, after very careful examination of the specimen and of numerous microscopic sections, that this is an example of primary ovarian gestation, for the following reasons:-

(*a*) The relations of the gestation sac to the Fallopian tube, the ovarian fimbria, the mesosalpinx, and the outer border of the broad ligament, are precisely those of the normal ovary.

(*b*) Ovarian tissue can be demonstrated in the wall of the sac for more than two thirds of its extent; in the remaining portion, which corresponds to the inner pole, the wall is so much thinner as to be almost structureless.

(*c*) Within this sac the placenta and membranes are contained.

(*d*) The Fallopian tube shows no evidence whatever of dilatation, adhesions, or rupture, and no indication whatever exists that it has been gravid.

From these reasons we conclude that gestation occurred within the ovary, and that in its development the ovum expanded the ovarian tissue around it. The specimen is therefore an example of primary ovarian gestation.

J. H. Targett.
C. Hubert Roberts.
T. W. Eden, *Convener.*

January 16th, 1901.

CASE OF FIBRO-MYOMA OF UTERUS SHOWING MARKED CYSTIC DEGENERATION, REMOVED FROM A PATIENT AGED SIXTY-THREE, FROM WHOM BOTH OVARIES HAD BEEN REMOVED ELEVEN YEARS BEFORE.

Shown by Walter Tate, M.D.

The following case is of interest as it shows that degenerative changes, with increase of size of the tumour, may not only occur in the case of fibroids after the natural menopause, but also after the complete removal of both uterine appendages by operation. It is a further example of the uncertain results of oöphorectomy in the treatment of fibroids.

R. H—, aged 63, was married at the age of twenty-one, and had one child at the age of forty-two. After this the periods were regular till 1888, when she began to have a series of irregular hæmorrhages, each lasting from three to five weeks, which continued up to the end of 1889. On the 5th December, 1889, she was operated upon in St. Thomas's Hospital by Dr. Cullingworth, and an inflamed tubo-ovarian cyst was removed from the right side. There was at this time a fibro-myoma of the uterus reaching up to the level of the umbilicus, and in view of the presence of this tumour the appendages of the left side, which were normal, were also removed. The patient had a slight hæmorrhage after returning to her home, but she then remained in good health and free from loss till 1896. During the last five years she has had attacks of pain lasting for one day every month. The pain was situated in the hypogastric region, and was accompanied by frequency of micturition. The tumour has steadily increased in size during this period, and has caused considerable discomfort. She was admitted again to St. Thomas's Hospital on January 19th, 1901. On

examination, there was a tense, elastic, symmetrical swelling nearly as large as a seven months' gestation, extending as high as eleven and three quarter inches above the pubes. It was evident that the tumour had undergone marked cystic change, and it was decided to remove it.

Abdominal hysterectomy was performed by Dr. Tate on 24th January, 1901. There were some firm organised adhesions of the intestines over the posterior surface of the tumour, but after separation of these the further steps of the operation were completed without difficulty. On section of the tumour removed, it was seen that the fibroid was entirely converted into a loculated cavity, containing forty-two ounces of straw-coloured fluid, which coagulated at once, the whole being surrounded by a capsule of greatly hypertrophied uterine tissue. After removal of the fluid the mass removed weighed 2 lbs. 1 oz.

The patient made an excellent recovery.

Dr. Cullingworth said that it was at his suggestion that Dr. Tate had shown this specimen. He hoped that Fellows would place on record all cases bearing on the question of the liability of fibroids to increase in size and to undergo serious degenerative changes after the menopause. It was becoming evident that such increase and such changes occurred more frequently than had been supposed and taught, and in the present unsettled state of professional opinion as to the desirability of removing fibroids early, this point was one on which it was incumbent upon us to obtain all the knowledge we possibly could.

Dr. C. Hubert Roberts asked Dr. Tate if a microscopical examination had been made of the tumour. The point he (Dr. Roberts) was most interested in was the pathology of such cysts, and he wished to ask Dr. Tate whether the spaces in his specimen exhibited any evidence of an endothelial lining. Dr. Roberts had examined a number of so-called cystic fibroids removed at the Samaritan Hospital. There appeared to be two groups—those occurring in large fibroids of the body of the uterus, and those occurring in the cervix. In all the cases of cystic fibroids of the body Dr. Roberts had examined, the spaces were devoid of any endothelial lining, but contained the serous fluid, easily coagulable, as in Dr. Tate's case. Dr. Roberts believed such spaces to be the result of retrograde degenerative changes in certain areas of the tumour, owing to deficient blood-

supply, and not of lymphatic origin. There were several fine specimens in the Royal College of Surgeons Museum (Nos. 4643 c. 4643 d). In cystic fibroids of the cervix it was not uncommon to find spaces lined with definite epithelium very similar to that of the normal cervical glands. Dr. Roberts had shown and reported on such a case last year to the Obstetrical Society, which is now preserved in St. Bartholomew's Hospital Museum (No. 2960 b). Dr. Roberts suggested that the retrograde changes in Dr. Tate's case might be the result of the removal of the appendages eleven years before.

Dr. Herbert Spencer hoped that Dr. Tate would make a microscopic examination of the tumour, in order to ascertain whether the tumour was a fibroid (which it appeared to be) or a sarcoma. Several cases had been published in which, years after oöphorectomy for fibroids, a myxo-sarcoma developed in the uterus. He had in recent years seen five cases of tumours which appeared to be fibroids, which microscopic examination and the subsequent history proved to be sarcomata. The formation of cysts in fibroids was common, and was probably in no way due to the oöphorectomy. Although the cysts did not usually have an epithelial lining, its occurrence was not very rare, as shown by von Recklinghausen and others. He (Dr. Spencer) had nine years ago removed by abdominal hysterectomy a remarkable fibro-cystic tumour of the uterus weighing about 70 lbs., in which the cysts were lined by columnar epithelium.

A NEW PESSARY.

(See 'Lancet,' October 6th, 1900.)

Shown by Hughes R. Davies, L.R.C.P., M.R.C.S.

Annual Meeting.

The audited Report of the Treasurer (Dr. J. Watt Black) was read.

OBSTETRICAL SOCIETY OF LONDON.

Abstract of Receipts and Payments for the year ending December 31st, 1900.

1900.	RECEIPTS.	£	s.	d.
To balance from 1899 .	£235 4 6			
Less Cheque outstanding	7 3 1			
	228 1 5			
On Deposit . . .	100 0 0			
		328	1	5
„ (1) 457 Annual Subscriptions, realising .		479	17	9
„ (2) Composition Fees . . .		47	5	0
„ (3) Midwives' Examination Fees . .		968	16	0
„ (4) Sale of 'Transactions'				
(Longmans) . .	£69 17 3			
Do. do. (Society) .	0 18 3			
Do. Midwives' Questions .	0 14 0			
Do. Midwives' Regulations and Infant Rules . .	0 2 7			
		71	12	1
„ (5) Interest on Debentures .	81 9 10			
Ditto on Deposit .	11 9 7			
		92	19	5

Audited and approved,

TOM MUNDY, L.C.A.

J. WATT BLACK, *Treasurer.*

February 1st, 1901.

£1988 11 8

1900.	PAYMENTS.	£	s.	d.
By (1) 'Transactions,' Vol. XLII, Printing, Paper, Binding, Delivery, and Illustrations		322	6	6
„ (2) Library:				
Books purchased . .	£30 16 2			
Binding . . .	16 18 5			
		47	14	7
„ (3) Museum and Library:				
Rent . . .	200 0 0			
Librarian's Salary .	160 0 0			
Repairs to Furniture, Cleaning, Coals, Lighting, etc. . .	37 9 4			
		397	9	4
„ (4) Expenses of Meetings . .		24	16	9
„ (5) Stamps, Stationery, and Printing .		54	10	3
„ (6) Examination of Midwives:				
Fees paid to Examiners .	445 17 0			
General Expenses .	116 2 9			
		561	19	9
„ (7) Accountant's Fee .		3	3	0
„ (8) Banking Expenses .		0	3	8
„ Balance at Bank . .	276 7 10			
On Deposit . . .	300 0 0			
		576	7	10

£1988 11 8

It was proposed by Dr. C. H. F. Routh, seconded by Dr. Peter Horrocks, and carried unanimously—"That the audited report of the Treasurer just read be received, adopted, and printed in the next volume of the 'Transactions.'"

Dr. C. H. F. Routh had much pleasure in moving the resolution put into his hands—"That the best thanks be given to Dr. Watt Black for the excellent way in which he had conducted his official duties as Treasurer to the Society." He remembered having heard Dr. Watt Black deliver on a former occasion a magnificent oration. A treasurer's report did not offer the same opportunities, but he had furnished the Society with a balance-sheet true in all its mathematical details, yet terse and comprehensive. It would satisfy everybody—money in balance, money in investments, showing the Society was in a very prosperous condition. He rejoiced at this result because, like all gynæcological societies, it must prove of the greatest advantage to womankind in teaching many M.D.s how to treat their diseases satisfactorily, and by prolonging the lives of the fair sex who were so successful in civilising and humanising the world.

Report of the Honorary Librarian.

The work of the Library has been carried out satisfactorily during the past year.

Though only a limited number of the Fellows have used their privilege of borrowing books, yet an increasing number have visited the Library and have shown their appreciation of the works at their disposal.

The total number of books in the Library has risen to 5543, the Society having acquired this year by donations 35 volumes, by purchase 15, and by periodicals 62.

The space available for new works is naturally becoming a source of difficulty, and it will soon become necessary to inquire whether a large number of old and

effete volumes should not be got rid of, so as to provide space for new and more valuable works.

It would not be right to close this report without a reference to the kind generosity of Dr. Cullingworth, who by presenting sixteen volumes of the first series and three volumes of the second series of the Index Catalogue of the Library of the Surgeon-General's Office (U.S. Army) has provided a most valuable assistance to Fellows who are anxious to obtain reference for the work which they have in hand. MONTAGU HANDFIELD-JONES.

It was moved by Dr. A. H. N. LEWERS, seconded by Dr. DRUMMOND ROBINSON, and carried unanimously—"That the report of the Hon. Librarian be received, adopted, and printed in the 'Transactions.'"

Report of the Chairman of the Board for the Examination of Midwives.

The year 1900 is ahead of all other years in the number of candidates for our certificate.

In 1899 there were 688, in 1900 925, an increase in one year of 237 candidates. Of these 754 passed, 155 failed, and 16 were absent.

The total number of names on our Register at the end of the year 1900 was 5529.

During the four years that I have held the office of Chairman, the number of midwives holding our certificate has very nearly doubled.

The work of the Examining Board has immensely increased, and in vacating the Chair I should like to express my thanks to the Examiners for the punctual, tactful, and effectual way in which they have on all occasions conducted their examinations.

There are people who think that—

"A little learning is a dangerous thing;"

but this quotation related to the Muses and not to midwives, and was not intended as a certificate in favour of ignorance.

Personally I am in favour of stiffening our examinations, even if by so doing it should result in the diminution of the number of successful candidates.

I very much hoped that the new century might have found a Midwives Bill through Parliament, but this has not been the case.

The Obstetrical Society has for thirty years now approved of the principles of education, examination, and registration, and in vacating the Chair of the Board for the Examinations, I am happy to be able to report that our position is stronger than ever.

At the examination in January, 1901, there were 238 candidates. Of these 198 passed, 36 failed, and 4 were absent.

During the Session arrangements have been made by which any Fellow of the Obstetrical Society may, at the discretion of the Chairman and after due notice, attend the examinations of the Board, provided that not more than three visitors are present at any one meeting of the Board.

PERCY BOULTON, M.D.,
Chairman.

It was moved by Dr. G. ERNEST HERMAN, seconded by Dr. CULLINGWORTH, and carried unanimously—"That the report of the Chairman of the Board for the Examination of Midwives be received, adopted, and printed in the 'Transactions,' and that the cordial thanks of the meeting be given to Dr. BOULTON, who now retires from the office of Chairman of the Board, which he so ably filled, and where his loss will be much felt, and that he be also cordially thanked for his valuable services to the Society as Editor of the 'Transactions,' from which office he now retires."

The following alteration in the Laws was put from the Chair and carried :

(*Present Laws.*) CHAPTER V, § 2.	(*Proposed Laws.*) CHAPTER V, § 2.
2. Any Fellow whose subscription shall be more than three months in arrear shall be reminded of the same in writing ; and in the event of payment not being made, or a satisfactory answer received, before the following meeting, the fact shall be reported to the Council, and his name shall be suspended in the Library. He shall not enjoy the privileges of a Fellow until the arrears are paid. If the subscription be not paid within twelve months, he shall cease to be a Fellow of the Society.	" Any Fellow whose subscription shall be more than three months in arrear shall be reminded of the same in writing ; and in the event of payment not being made within twelve calendar months of the date on which it fell due he shall cease to be a Fellow of the Society."

The President announced that the Officers and Council recommended by the Council were duly elected.

President.—Peter Horrocks, M.D.

Vice-Presidents.—John W. Byers, M.A., M.D. (Belfast) ; William Radford Dakin, M.D. ; John Phillips, M.A., M.D. ; Edward Malins, M.D. (Birmingham).

Treasurer.—James Watt Black, M.D.

Chairman of the Board for the Examination of Midwives.—W. R. Dakin, M.D.

Honorary Secretaries.—Herbert R. Spencer, M.D. ; Amand Routh, M.D.

Honorary Librarian.—Montagu Handfield-Jones, M.D.

Other Members of Council.—Charles Edmund Adams ; A. H. Freeland Barbour, M.D. (Edinburgh) ; George Francis Blacker, M.D. ; Robert Boxall, M.D. ; Henry Briggs, M.B. (Liverpool) ; Francis Henry Champneys, M.A., M.D. ; Thomas Vincent Dickinson, M.D. ; Charles Owen Fowler, M.D. ; William John Gow, M.D. ; Walter Spencer Anderson Griffith, M.D. ; George Ernest Herman, M.B. ; Arthur H. N. Lewers, M.D. ; Thomas Robert Lombe, M.D. (Torquay) ; William London Reid, M.D. (Glasgow) ; William Japp Sinclair, M.D.

(Manchester) ; Arthur Francis Stabb, M.B., B.C. ; John William Taylor, F.R.C.S. (Birmingham) ; Charles Percival White, M.B.

It was moved by Dr. Malins, seconded by Dr. Gow, and carried unanimously—"That the thanks of the meeting be given to the retiring Vice-President, Dr. Hurry, and to the other retiring Members of Council, Drs. Addinsell, Fraser, Giles, McCaw, Maclean, and Hugh Playfair."

The President then delivered the Annual Address.

ANNUAL ADDRESS.

We have entered the twentieth century, and although the country is at this moment under the shadow of a great loss, of which we have taken official cognizance this evening, we are in less apprehension than when I delivered the last address, as then three British towns now free were still beleaguered. The Society is within eight years of its jubilee. It never stood higher than it does at the present day for the quality of the contributions received at its meetings and for the interest taken in its discussions. Owing to increased active competition from newer and more general medical societies our numbers still show a slight annual diminution. On January 1st, 1900, the total number of Fellows was 689, 14 being honorary and corresponding, and 675, ordinary. In 1900 we lost five by death and eighteen by resignation, whilst thirteen names have been erased. On the other hand, we have gained twelve by election, so that our net loss is twenty-four; but more than half that number includes those erased gentlemen who, to say the least, did not afford us active support. On January 1st, 1901, our total amounted to 665. Of these fourteen are honorary, and 651 ordinary Fellows. I trust that there will be a little active recruiting, especially at the Medical Schools, and I am glad to find that this year we are beginning well. The Society shows no sign of losing the high position which it holds among similar institutions. In accordance with the spirit of the time it has been suggested that we should in future allow Fellows to publish their contributions to the Society in medical periodicals, and that suggestion will be duly considered.

It is my duty to review the work of the last year as

briefly as possible, although my summary cannot be so short as the meeting in general might wish without unfairness to those who have taken the trouble to bring forward contributions. I therefore crave your patience out of consideration for those gentlemen. I have classified papers and specimens together accordiug to their subjects, for experience has shown that a review of the year's work in strict chronological order involves a mixing up of one subject with another sufficient to make the address far more tedious than it need be.

I must first observe that the Medicines Bill was read a second time in the House of Commons on March 9th. At the division the "Ayes" numbered 124, the "Noes" numbering 34. It passed speedily through the Grand Committee, but at its third reading, on the last Wednesday in June, when hardly two minutes were left for division, after Sir Walter Foster had spoken in opposition, its promoter, Mr. Heywood Johnstone, preferred to talk it out, declaring in his speech that the Government ought to take up the question.

Pregnancy, Labour, and the Puerperium.

At the July meeting Dr. Blacker laid before us a fine series of frozen sections of a uterus at the tenth week of pregnancy, showing hæmorrhages into the placenta, decidua reflexa, and decidua vera. The patient, aged twenty-seven, had advanced organic disease of the heart, and died two days after paracentesis of the right pleura; the mitral orifice was extremely contracted.

In April Dr. Munro Kerr, of Glasgow, read an interesting clinical paper on three cases of incarceration of the retro-displaced gravid uterus, and one of extra-uterine pregnancy simulating that condition. Authorities have already distinguished three varieties of backward displacement of the gravid uterus, namely, retroflexion, retroversion, and lastly, partial retroversion or sacculation.

Dr. Kerr's three cases represented these three varieties. There was a good discussion on the proper treatment of backward displacement of the gravid uterus and on its diagnosis from extra-uterine pregnancy.

Professor W. Japp Sinclair read in December an instructive contribution to the diagnosis and treatment of retroflexion of the gravid uterus. Irritability of the bladder with more or less retention of the urine was, in his opinion, the most striking constant feature in this formidable complication of pregnancy. He advocated reduction by the introduction into the vagina of a watch-spring pessary, the bowel and bladder being carefully emptied beforehand. The patient is kept on her side with her face as much downwards as is consistent with comfort; the uterus will then return to its natural position in a few hours. In the fifteen cases where Professor Sinclair has practised this new method it has been uniformly successful. It also proved trustworthy in a case where a fibro-myoma attached to the fundus had fallen back into Douglas's space, and produced the bladder symptoms of retroflexion of the gravid uterus. The pessary raised the tumour into the abdominal cavity. This communication, the second on its subject during 1900, gave rise to much instructive debate.

In November, Dr. Herbert Spencer read notes by Mr. Nodes and Dr. Hinds, of Worthing, on a remarkable case of fatal rupture of an aneurysm of the splenic artery immediately after labour. The authors of the paper sent us the specimen illustrating this case, and I need not say that it was highly instructive; it is preserved in the museum of University College, London. The patient was seized with a kind of convulsion ten minutes after the expulsion of the placenta, and died a quarter of an hour later. The peritoneum was found full of blood.

Dr. Herbert Spencer read at the January meeting a valuable clinical report of four cases of rupture of the uterus, successfully treated by packing the tear *per vaginam* with iodoform gauze. He informed us that

they were the only cases in which he had adopted this method of treatment, and, at the same time, the only cases which he had known to recover. Twice he had performed abdominal hysterectomy with a fatal result. In the treatment of rupture of the uterus abdominal section was, in his opinion, rarely required. It was to be undertaken almost solely when the fœtus had escaped completely or in great part into the peritoneal cavity. It should be performed under local infiltration anæsthesia, followed by flushing of the peritoneal cavity with normal salt solution. If possible the laceration should then be sutured; if not, it should be packed with iodoform gauze, with abdominal or vaginal drainage. Abdominal hysterectomy—very perilous, as patients with rupture of the uterus were already in a state of deep shock—was hardly ever necessary. When the broad ligaments were so much damaged as to endanger the vitality of the uterus, vaginal hysterectomy should be performed. Lastly, Dr. Spencer insisted that all incomplete lacerations implicating the broad ligament and most complete lacerations should be treated by packing the rupture, from the vaginal side, with iodoform gauze after the removal of clots and fluid blood. There was a good discussion on this paper; altogether the Society seemed in favour of packing. Dr. Spencer emphatically declared his preference to iodoform-gauze over sterilised gauze.

Mr. Targett showed in November a specimen of multiple peritoneal ruptures of the uterus.

Dr. Horrocks exhibited in July a pregnant uterus and fibroid tumour, removed from a primipara by abdominal hysterectomy about the fifth month. The tumour and the portion of the uterus containing the fœtus were so closely blended that enucleation of the fibroid above seemed dangerous, so the whole mass was removed.

Dr. Herman read, at the October meeting, a communication of much importance on "Subcutaneous Symphysiotomy." He claimed that this modification was simple and quick, and obviated the disadvantage of a gaping

wound and a subsequent scar. The risk of sepsis and hæmorrhage was also lessened. The size of the child should be carefully estimated before operation, as attempts to deliver too large an infant by symphysiotomy may cause injury to the urethra. This operation should never be postponed until the necessity for some kind of operative delivery has been demonstrated by the complete failure of the natural powers.

There has been much discussion recently, at home and abroad, about the true merits of Cæsarean section. Many authorities are beginning to believe that under some circumstances it is not the best operation to perform; indeed, it is not even justifiable. Among these circumstances is labour obstructed by fibroids. Hence the importance of an excellent communication, read by Dr. Amand Routh in June, which included a case where he saved both mother and child, in the thirty-fourth week, by what he termed Porro-Cæsarean hysterectomy; in this case a true retro-peritoneal hysterectomy, with an anterior and posterior uterine flap made and treated in the usual manner. Dr. Routh considered that, in skilled hands, this operation was safer than Sänger-Cæsarean section with sterilisation in all cases of permanent obstruction to labour requiring abdominal section, save, perhaps, cases due to cancer of the supra-vaginal cervix. Dr. Routh held that Sänger-Cæsarean section without sterilisation was demanded under conditions where the mother could be safely allowed the chance of another child. Sänger-Cæsarean section with sterilisation was perhaps required in cases of cervical cancer where the supra-vaginal cervix was involved. In cases of very marked pelvic contraction the relative merits of the two operations remained uncertain. But hysterectomy or panhysterectomy was the right course where there was permanent obstruction to labour, decomposed fœtus, septic endometritis, flooding from uterine inertia during Cæsarean section, and in instances where the uterus was already much damaged by handling in attempts to deliver

through the vagina. Hysterectomy was also indicated in osteomalacia, the ovaries in this case being removed as well, since their removal may cure the bone disease.

There was an active discussion on this instructive paper. Some speakers advocated the older supra-vaginal hysterectomy with extra-peritoneal treatment of the stump. They considered that it was easier and safer in the hands of an experienced obstetrician who was not accustomed to do abdominal sections; indeed, more than once the elastic ligature has been applied to the cervix, and the uterus amputated after delivery of the pelvis, with successful results, in country practice. It was admitted, however, that in the hands of an experienced operator, like the author, the new hysterectomy is well suited for cases of fibroid obstructing labour. Panhysterectomy has the disadvantages of being both lengthy and difficult.

At the same meeting Mr. Targett showed a ruptured uterus which he had removed at term. The patient had undergone Cæsarean section two and a half years previously. The cicatrix in the uterine wall gave way, and Mr. Targett found the child and placenta free in the peritoneal cavity.

In relation to deciduoma malignum Dr. Hubert Roberts exhibited myxomatous chorion retained for seven months after labour. After careful microscopical examination of the specimen it was found that there was no evidence of malignant degeneration.

Extra-uterine and Cornual Pregnancy.

Two cases of extra-uterine gestation and operation a few months after death of the fœtus formed the subject of papers. In the first case, read by Dr. Phillips at the March meeting, fœtal death occurred at term, after spurious labour. Over four months later the patient had a rigor, followed by much pain and fever. The abdomen

was opened, and a full-term dead fœtus delivered from an extra-uterine sac. The placenta was putrid; it was removed without hæmorrhage. The patient recovered, and was restored to perfect health. This pregnancy was of the abdominal type; at the operation both tubes were found to be quite normal and presented no signs of cicatrices.

In the second case, which I read in June, the patient was subject to diarrhœa from the sixth to the eighth month, owing, I suspect, to partial attachment of the placenta to intestine. In the eighth month spurious labour occurred, followed by septic symptoms. Two months later I removed the fœtus, which, having developed in the posterior layer of the right broad ligament, was very fœtid. The sac, which in posterior tubo-ligamentary pregnancy cannot be completely extirpated, was packed with gauze for a few days and then drained. The placenta came away in fragments. The patient did well for several weeks, but a fæcal fistula formed; then symptoms of chronic obstruction appeared, and she died in the ninth week after operation, flatus passing to the last. The contraction of the sac had dragged down several coils of firmly adherent small intestine, involving extensive surfaces of mesentery. This fact probably explained the predominance of emaciation over vomiting and distension. I noted that we still are compelled to trust too much to luck in the treatment of the sac after delivery of a dead extra-uterine fœtus. Many cases slowly die of inanition long after recovery from the operation. In the discussion it was admitted that a sac of this kind could not be dissected away, and that there was no absolutely sure way of dressing it so as to avoid the dangers of contraction.

In April I exhibited a tubal mole showing in its interior a fœtus three quarters of an inch in length in perfect preservation. The specimen, now in the Museum of the College of Surgeons, is highly instructive, the

more so as the clinical history was very clear. The patient has since given birth to a female child at term.

In November Mr. Bland-Sutton showed us an instructive preparation of a gravid tube removed when expelling its ovum, which could be seen protruding from the ostium.

Dr. Croft, of Leeds, read in November notes on "An Anomalous Case of Ectopic Pregnancy, probably Ovarian." The sac, which contained a four months' fœtus with placenta, was related to the tube and uterus as though it were an ovarian tumour with a short pedicle. The tube was normal and the mesosalpinx intact. Dr. Croft referred to Dr. Anning and Mr. Littlewood's case, where primary ovarian pregnancy seemed evident, and the Hon. Secretaries succeeded in inducing those gentlemen to exhibit their specimen; but that is another story, as Mr. Rudyard Kipling would say, as it was shown to us at the January meeting this year. Still we must thank Dr. Croft for turning our attention to a subject of extreme importance, and for starting a most instructive discussion. Another communication was read together with Dr. Croft's paper; it was a valuable clinical note by Dr. Lewers on "A Case of Repeated Ectopic Gestation in the same Patient; Laparotomy on each occasion." In 1894 Dr. Lewers removed a gravid tube and reported the case; in May, 1900, he removed the opposite tube, also gravid. After the reading of Drs. Croft and Lewers's papers there was much discussion, especially as to the danger and treatment of hæmatocele.

Mr. Targett exhibited at the October meeting a specimen of pregnancy in the right and undeveloped cornu of a uterus unicornis. He diagnosed accurately the nature of the pregnancy before the operation, where he successfully removed the cornu, which contained a large, dead fœtus. He found no difficulty in securing the pedicle.

The Pelvis and its Deformities.

In March Mr. T. W. P. Lawrence read and demonstrated a re-description of the specimen of spondylolisthesis in the Museum of University College originally unearthed by Dr. Neugebauer, jun., and described by Dr. Graily Hewitt and Mr. Shattock in a paper read before the Society sixteen years previously. Mr. Lawrence carefully analysed the precise relations not only of the body of the fifth lumbar vertebra but also of its laminæ, which had not maintained their normal position, as was made out before, but had been dislocated downwards on to the back of the sacrum. At the same meeting Dr. Blacker brought forward a spinal column exhibiting want of ossification in the interarticular portion of the lumbar vertebræ, etc., a condition predisposing to spondylolisthesis.

Diseases of the Uterus.

During the past year much has been written about the clinical history of fibroids. Dr. Thomas Wilson, of Birmingham, read in May a remarkable contribution on the "Relations of Organic Affections of the Heart to Fibro-myoma of the Uterus." Fibroids, he found, aggravated cardiac disease already present. Frequently the heart affection is set up by the growth of the fibroid, or else both depend upon a common cause. He had detected a cardiac hypertrophy homologous to the enlargement of the heart in pregnancy, but far more serious, as the period of active growth of a fibroid is indefinite. After a successful operation the heart tends to recover its tone. Cardiac disease, however caused, favours the occurrence of thrombosis both before and after operation. The heart disease was a contra-indication to the use of ergot, and might be a strong indication for operative inter-

ference. In the after-treatment of hysterectomy for fibroid great precautions must be taken against shock and subsequent heart failure. There was some discussion on Dr. Wilson's paper, and opinion was found to be much divided on the question of the relation of fibroid to heart disease.

Dr. Stabb brought forward in April a pedunculated subserous uterine fibroid which had undergone, it would appear, myxomatous and cystic degeneration, though it seemed possible that the pathological change was sarcomatous. The specimen was, therefore, referred to a sub-committee, which confirmed Dr. Stabb's opinion, as there was no clear evidence of sarcoma.

Since Dr. Herbert Spencer read a communication over two years ago on uterine fibroid disease in early adult life, the Society has taken much interest in the subject. Dr. Cullingworth exhibited in April a fibro-myoma of the uterus removed from a patient aged twenty-three; and in November Dr. Giles read a short note about a patient of the same age upon whom he had performed myomectomy.

In January, Dr. Eden exhibited some fine microscopic sections from a suspicious case of adenoma of the uterus. Even so experienced and careful a pathologist as the exhibitor hesitated to define it as a non-malignant growth. It appeared innocent in its general characters, but certain histological features were suggestive of malignancy. The clinical history was spoilt by the unfortunate death of the patient by embolism a fortnight after the operation. Dr. H. R. Andrews showed, in June, an example of sarcoma of the anterior wall of the uterus from a woman aged thirty-three. The tumour had been observed for only four months, and on abdominal section was found irremovable, as the broad ligament was infiltrated.

Mr. Targett exhibited in October a uterus, removed from a woman seventy-five years of age, for a tumour which was suspected to be an example of that rare disease, squamous-celled epithelioma of the body, like

Kaufmann's case recorded in Dr. Cullen's splendid work on 'Cancer of the Uterus' (p. 470) published last year. I understand, however, that Mr. Targett has since found reasons to be very doubtful about the pathology of this specimen.

In May Dr. Walter Tate read notes of a case where a fibro-myoma of the cervix, 2 lbs. 6 oz. in weight, was removed by enucleation; so much hæmorrhage, however, ensued that the uterus was removed as well through the vagina, and the patient recovered. In June Dr. Hubert Roberts showed a specimen of cystic fibro-myoma of the cervix, or, rather, as the microscope proves, a cystic fibro-adenoma, the cysts being lined with a single layer of columnar epithelium, as in the glands of the cervix.

In July Dr. William Duncan exhibited some multiple myxomatous polypi from the cervix uteri.

In June Dr. Walter Griffith exhibited specimens of squamous-celled epithelioma of the cervix in a very early stage, and of squamous-celled epithelioma invading surrounding tissues like a columnar-celled variety.

Dr. Hubert Roberts read, in October, a short communication on a case where the cervix uteri was the seat of an atypical spheroidal-celled epithelioma, whilst from the fundus grew an adenoma in no way connected with the growth in the cervix.

Diseases of the Fallopian Tubes.

As usual, we have had plenty of specimens of tubal disease. Mr. Malcolm brought before us in January a specimen of double pyosalpinx in which the tubal sacs communicated. The septum between the two dilated and thickened tubes was perforated by an opening of the size of a florin. In May Dr. Galabin exhibited a second specimen of the same condition; the pyosalpinx was here tubercular. In March Drs. Cullingworth and J. S. Fairbairn showed us a large inflamed cyst, which they be-

lieved to be ovarian. The Fallopian tube opened directly into it by an aperture large enough to admit the tip of the little finger. A remarkable specimen of extreme distension of the Fallopian tubes from tubercle, in association with uterine and broad ligament fibroid, was exhibited by Dr. Horrocks in May.

Professor Pawlik, of Prague, having perused certain communications prepared by Dr. Hubert Roberts and myself, and published in the 'Transactions,' was good enough to send us some photographs from a case of primary cancer of the Fallopian tube under his care in the Bohemian capital. The patient was seventy years of age, so this is the oldest case on record. Death from recurrence occurred two years and five months after the removal of the tube. I find that the case has been published in full, since the photographs were exhibited in January, in a foreign medical paper.*

Diseases of the Ovary.

In February Dr. Walter Griffith exhibited a specimen of primary solid carcinoma of the ovary from a woman aged fifty-nine. When she was nineteen, and once more a few years later, Sir James Paget removed some small nodules from the left breast. As often happens in malignant disease of the ovary, operation was unsatisfactory; the uterus had to be removed as well as the ovaries, and death occurred from exhaustion in two days. Some fine drawings of sections of the tumour by Dr. Hubert Roberts have been published in the 'Transactions.' It is important to examine malignant ovarian growths with extreme care, for the Germans, after long research, clinical and pathological, have made out that, contrary to what has been taught here, carcinoma of the ovary is more common than sarcoma.†

* "Ein Fall von primären Tubencarcinom," Dr. B. Novy, 'Monatsschrift f. Geburts. u. Gynäk.,' vol. xi, 1900, p. 1043.

† Martin, 'Die Krankheiten der Eierstöcke und Nebeneierstöcke,' 1899, p. 540.

Dr. Lockyer exhibited in January a multilocular cyst of the oöphoron, that is to say, a common ovarian cyst, which had burrowed freely into the right broad ligament. It is rare for a tumour of this familiar type to burrow.

In April Dr. Addinsell showed a fine fibroma of the ovary, a form of tumour probably more frequent in that organ in proportion to sarcoma than is commonly supposed.

Dr. Macnaughton Jones read in April short notes of a case of successful ovariotomy where a cyst had suppurated after labour. In discussion it was noted that suppuration of ovarian tumours was relatively common after labour. At the next meeting Dr. Walter Tate related another case of suppuration. In this instance the ovarian cyst obstructed labour and was not removed till eighteen months later.

In December Dr. Herbert Spencer exhibited two cases of parovarian cyst with twisted pedicle. The remarkable feature about each specimen was deep congestion of the ovary, which lay separate from the cyst and below it, whilst the cyst itself was quite free from any engorgement of its vessels. Both cysts were from young single women.

Mr. Targett exhibited in November a specimen of acute suppurative oöphoritis.

Diseases of the Vagina and Vulva.

Dr. Arnold Lea related in April an instructive case of a rare disease, myxo-sarcoma of the vagina, occurring in a child under three years of age.

Monsters and Malformations.

Teratology is repulsive to our artistic instincts, for in a monster the human form divine always deviates more or less materially from the classical standard. Nor is

that science a road to fortune. None the less is it of paramount importance as an aid to embryology. Hence it is satisfactory to find that we have had a fine show of monsters, and what is better, the exhibitors have supplied us with complete reports of these interesting though unsightly little beings. In February Dr. Amand Routh showed us a specimen of fœtus thoracopagus. His report has been published in our 'Transactions' with three highly instructive diagrams by Dr. Hubert Roberts, illustrating the arrangement of the viscera as detected by Dr. Routh and Dr. Roberts on careful dissection.

In March Dr. Macnaughton Jones read notes of two cases of arrested development of the genital tract. In the first there was a vagina with atresia, but apparently no uterus and appendages; the patient was three years of age. In the second, where the patient was twenty-two years old, the vulvar structures and vagina were normal, but no uterus or appendages could be found, and the mammæ were undeveloped.

In March Dr. Arthur Keith, Joint Lecturer on Anatomy to the London Hospital Medical College, demonstrated the anatomy and nature of two acardiac acephalic fœtuses. His exhaustive description of the specimens, with excellent drawings, are published in our 'Transactions.'

An anasarcous fœtus, with large placenta, was exhibited in March by Dr. Boxall.

In May Dr. H. R. Andrews exhibited the tenth specimen on record of congenital prolapse of the uterus. There was no spina bifida, a malformation which existed in seven out of the nine cases already published; but there was imperforate rectum, and the infant died on the twelfth day.

Dr. Andrews showed us in October two singular almost amorphous bodies, which were expelled from the uterus early in labour; when the child was delivered it was found that they were ill-formed supernumerary digits.

After the Annual Meeting last year, I suggested that

there was quite enough material in the Society's 'Transactions' to make up a first-class English work on teratology.* Last autumn, through the recommendations of Dr. Blacker, the Council of the Society appointed a sub-Committee to draw up an index founded on the various systems of teratological nomenclature at present in use, and upon the specimens in the London museums, for it was felt that an index of this kind would be of great value to Fellows showing specimens before the Society, and might well become a standard system of nomenclature, at least for English writers. Dr. Blacker rightly reminded the Council of the difficulty often experienced in recognising various specimens of the same kind owing to the different names by which they are described, and the frequent inaccuracy of their classification. We believe that our Index will help the student of teratology to overcome this difficulty.

Instruments.

Dr. Robert Wise brought before the Society in November a new vaginal douche, a modification of Higginson's syringe, which afforded a continuous current. There was some discussion as to whether syringes of the Higginson type were suited for douching, and there was variety of opinion expressed as to the simplest mechanism for ensuring a continuous current.

The Physiology of Sex.

A very remarkable monograph on "The Essential Factor in the Causation of Sex: a New Theory of Sex," was read in December by Mr. E. Rumley Dawson. This communication was prepared after long study of cases of removal of one ovary, and of families where one sex predominated or prevailed entirely. Being thus essen-

* Vol. xlii, p. 33.

tially a work of the pen, it requires to be read with care, and supported or opposed by the pen rather than by oral discussion at a Society meeting. The boldest theory in this singular monograph was the assertion that the sex of the child depends upon which ovary supplied the ovum fertilised. If the right ovary be the source of that ovum, the child will be a male; if the left, a female. Sources of fallacy were demonstrated, and apparent exceptions explained. This paper was strongly criticised in a very active discussion by several obstetrical and gynæcological authorities; but the author, who showed great dialectical ability both in his written monograph and in his reply to his critics at the meeting, stoutly maintained the scientific value of his views. This memorable discussion on a sex problem—a subject always of interest, though on the borderland of the insoluble—was further remarkable as being the last piece of work done by the Obstetrical Society in the nineteenth century.

In conclusion, I feel sure you will support me when I say that much excellent work was done at our meetings in 1900.

Obituary Notice.

The Society has to regret the loss during the past year of one of its honorary and also original Fellows, Sir William Overend Priestley, Kt., a past President.

Sir William Overend Priestley.

On the evening when I delivered the last Annual Address Sir William Priestley was unanimously elected an Honorary Fellow of this Society. Such, however, was his state of health at that date, that we all feared that he could hardly hold that honour long, and that his name would certainly appear amongst the obituary notices on the present occasion. Our fears proved but

too true. He was well enough to send us a letter of thanks,* but none the less was he in a hopeless condition. His death occurred on April 12th, just nine weeks after the last Annual Meeting.

Thus we have lost another original Fellow of the Society, a man great in his art, who attained titular distinction and much social popularity. William Overend Priestley was born on June 24th, 1829, at Morley Hall, Churwell, near Leeds, the residence of his father, Mr. Joseph Priestley.

He was the grandnephew of Dr. Priestley, LL.D. (1733—1804), famed in science as the discoverer of oxygen, and in history as the victim of a reactionary mob, who destroyed his house, library, and laboratory at Fairhill, near Birmingham, in July, 1791, and sought his life because he had spoken in favour of the principles of the French Revolution. Those principles were noble; but his persecutors followed the practice of the French Revolution which was ignoble. This great chemist died at Northumberland, a town in Pennsylvania, in 1804.

Sir William Priestley began his professional career as apprentice to Dr. Sadler, of Barnsley, in Yorkshire. He had for fellow apprentice Sir Spencer Wells, who began life later, being eleven years his senior, and who not many years ago informed me that Dr. Sadler prophesied in those days, now so far off, that Priestley was bound to obtain eminence in his profession and success in high-class practice. Priestley afterwards studied at Edinburgh University with great distinction. When only twenty-one years of age he read before the Botanical Society of Edinburgh, of which he was already a Fellow, a communication entitled "Remarks on some British species of *Carex*."† It consists of four pages of notes on *Carex montana*, observations on the fructification of *C. intermedia*, and evidence as to the alleged identity or specific

* Feb. 13th; see 'Trans. Obstet. Soc.,' vol. xlii, p. 131.

† Published in the 'Annals and Magazine of Natural History,' vol. vi, 2nd series, 1850, p. 188.

difference of *C. Œderi* with *C. flava*, of *C. Bœninghausiana* with *C. axillaris*, and of *C. Persoonii* with *C. curta*. I dwell upon this early piece of work because it shows us that Priestley began his professional life by giving himself sound scientific self-instruction. Nothing could be more calculated to teach a young man the high art of taking pains than work at the specific distinction between different kinds of sedges. Those of us who have attempted that task are in a position to do justice to Priestley. This early work further proves that deep biological study at the beginning of life devoted to our profession does not prevent the student from likewise acquiring a knowledge of human nature sufficient to ensure him success in life, nor does it check or blunt those social qualities which make a man admired in the society of ladies and gentlemen of culture.

In 1851, when still unqualified, Priestley published notes "On Pelvic Cellulitis and the Fascia of the Pelvis in the Female," which appeared in the 'Edinburgh Medical Journal.'

In 1853 he took the degree of M.D. as Senate Gold Medallist of his year, and also studied at King's College, London. When qualified, Priestley worked as physician's assistant under Sir James Y. Simpson, who held his pupil in esteem; while Priestley afterwards edited, in co-operation with Dr. Horatio Storer, of Boston, U.S., a collection of obstetrical writings by his great teacher.

In 1856 Priestley set up in London as a physician, and married the daughter of Robert Chambers, LL.D.—an eminent literary authority, and a member of a world-renowned firm of publishers,—best known, though not till after his death, as the author of 'Vestiges of the Natural History of Creation.'* One son, Dr. Robert Chambers

* The first edition was published anonymously in 1844. The authorship was first ascribed to Dr. Chambers in the 'Athenæum,' December 2nd, 1854. It was publicly declared by Alexander Ireland in his introduction to the twelfth edition (1884).

Priestley, is well known to us as a Fellow of our Society.

In 1858 Priestley was appointed, together with another of our original Fellows, the late Dr. W. Bloxam, Joint Lecturer on Midwifery, at the now extinct Grosvenor Place School of Medicine, where his former fellow apprentice, Sir Spencer Wells, lectured on Operative and on Ophthalmic Surgery,* and also taught systematic surgery in conjunction with Mr. William Adams the orthopædic surgeon. Another well-known doctor, Sir Benjamin Ward Richardson,† was then a colleague of Priestley, lecturing in winter on Anatomy and Physiology, in summer on Hygiene.

In the year of his appointment to this School of Medicine he delivered there a course of "Lectures on the Development of the Gravid Uterus," which, when published two years later, enjoyed great popularity. They were originally issued in the 'Medical Times and Gazette' shortly after their delivery.

In 1859 Priestley was elected Physician-Accoucheur to the St. Marylebone Infirmary, an appointment which he held for several years.

In 1860 he gave up his appointment at the Grosvenor Place School for the Chair of Midwifery and the post of Physician-Accoucheur to the Middlesex Hospital, which he held until 1863.

During the years 1859 to 1860 Priestley was Physician to the Samaritan Free Hospital. In 1863, on the retirement of Dr. Arthur Farre, he was made Professor of Obstetric Medicine to King's College, and Physician-Accoucheur to its hospital, defeating Drs. Tanner and Meadows, the assistant accoucheurs, who resigned their

* I have verified these appointments and their dates from contemporary "Student's Numbers" of the 'Lancet.'

† Entered in the "Student's Numbers" simply as "Dr. Richardson," but the 'London and Provincial Medical Directory' for 1858 gives "Richardson, *Benjamin Ward*," as "Lecturer on Anatomy and Physiology to the Grosvenor Place School of Anatomy."

appointments. Next year Priestley had the misfortune to be attacked with diphtheria, followed by partial paralysis. For some months Dr. Charles West occupied his place as Lecturer. On recovery, after prolonged absence from town, Priestley rapidly regained his temporarily lost practice, so popular was he with his patients.

In 1872 he resigned his appointment at King's College, and was afterwards placed on the Consulting Staff and made an Honorary Fellow of that College. He was appointed Examiner for the Diploma of Licentiate of Midwifery of the Royal College of Surgeons in 1866. He held the appointment for nine years when, in 1875, he and his fellow examiners, Drs. Farr and Barnes, resigned, objecting to examine women candidates.

Priestley had the honour of being selected by Her late Majesty to go to Darmstadt as Physician-Accoucheur to Princess Louis of Hesse (Princess Alice of England), and he also attended Princess Christian of Schleswig-Holstein. In 1893 he received the honour of knighthood.

In 1896 Sir William Priestley was elected, unopposed, as Member of Parliament for the Universities of Edinburgh and St. Andrews in the Conservative interest. He was a promising and popular Member, but his career in the House was too short to win for him political fame. He was unfortunately prevented from taking part in the debate on the Midwives Bill, which he was ready to support so far as it did not trench on the Medical Acts. He took an active share in the debate on the second reading of the Vaccination Bill—afterwards the Vaccination Act of 1898.*

Priestley played a leading part in the foundation of the Obstetrical Society. In 1859, when it was founded, he was in practice in Somerset Street, Portman Square. He was a member of our first Council, and contributed no less than three papers to the first volume of our 'Transactions,' no other Fellow having written more than two.

* For an excellent summary of Sir W. Priestley's speech on this occasion see 'Lancet,' vol. i. 1900, p. 1148.

His first contribution, a note on "A Curious Intra-uterine Injury on the Head of a New-born Child," is adorned with a chromo-lithograph. The second is of much interest in relation to some of our work during the past year, especially to Dr. Amand Routh's paper; it is entitled "A Case of Labour complicated with a Fibrous Tumour of the Uterus; Delivery by Long Forceps and subsequent Removal of the Tumour." The child was delivered, but died the next day; the fibroid which presented at the vulva was removed during the puerperium, not without dangerous hæmorrhage. The third contribution by Priestley to our first session were some excellent clinical notes "On Sloughing of the Fœtal Scalp as the result of Tedious Labour." It mainly consisted of a case where labour lasted for forty-eight hours, and the midwife had neglected to send for the doctor, though she noticed that the fœtal head pressed for several hours on the perineum. In our third session Priestley read notes "On the Treatment of cases of Abortion in which the Placenta and Membranes are retained," and then came a long pause, as it was not till eighteen years later that he read his next communication, the subject of which was spontaneous cure of an ectopic pregnancy with expulsion of fœtal bones. Next year he brought forward a good practical paper "On the Induction of Abortion as a Therapeutic Measure." Four years later he exhibited a coloured drawing illustrating chronic papillary inflammation of the vulva. In the succeeding year, 1885, appeared his last contribution, "Notes on a Visit to some of the Lying-in Hospitals in the North of Europe; and particularly on the Advantages of the Antiseptic System in Obstetric Practice." Men of mature years, knowledge, and experience, like unto Priestley when he prepared this instructive treatise, would do well to follow his example, and inspect and report upon foreign medical institutions.

Priestley was present for the last time at our meetings on the evening when Dr. Playfair's paper "On Removal of the Uterine Appendages in Cases of Functional

Neurosis" was read, and he took an active part in the discussion.*

Sir William Priestley was President of our Society in 1875 to 1876. The Annual Address which he delivered in 1876 deserves to be remembered, as it contains his views on puerperal fever, summed up in a masterly review of a recent discussion on that subject before our Society. In his second and Valedictory Address, he made some instructive observations on the use of the forceps, again a subject which had been under recent debate at our meetings.

Thus Sir William Priestley was not only a Fellow of the Society and an honour to it on account of his personal worth, but he was also an industrious contributor to our archives, an active debater, and an unusually good president.

In the autumn of 1872 Priestley read, at a meeting of the Royal Medical and Chirurgical Society, a communication which is now of some interest to us, as its subject has recently been discussed before our Society by Dr. Addinsell and others. That subject was "Cases of Intermenstrual or Intermediate Dysmenorrhœa,"† the well known "Mittelschmerz" of the Germans. He announced that he had met from time to time with obscure cases where pain resembling that of dysmenorrhœa was remote from the actual menstrual period, yet came on with almost the same regularity as the menstrual discharge. He reported four typical cases under his own care.

Sir William Priestley took much interest in the British Medical Association, and made more than one important address at its annual meetings, where on two occasions he was President of the Section of Obstetric Medicine. At the Manchester meeting, in 1877, he chose as subject

* 'Transactions,' vol. xxxiii, p. 20.

† The paper was not published in the 'Medico-Chirurgical Transactions,' but will be found complete in the 'British Medical Journal,' vol. ii, 1872, p. 431.

for his presidential address "The History of Obstetric Medicine in Manchester."* He eulogised Charles White, Surgeon to the Manchester Infirmary, who in 1784 wrote a treatise † styled by Priestley "one of the first scientific attempts to unravel the pathology of the disease called phlegmasia dolens," and spoke of Dr. Hull, the advocate of Cæsarean section, and of Mr. Kinder Wood, who was before his time in the treatment of placenta prævia.

Once more Priestley was President of the Section of Obstetric Medicine when the Association met in London in 1895. His address on "Over-operating in Gynæcology," ‡ one of his last professional addresses, attracted much attention at the time, and is not yet forgotten. He considered that the field of work in obstetric medicine was wide enough to satisfy the most ambitious obstetrician. A multiplicity of problems were awaiting solution, and he lamented the diversion of efficient men into devious paths. He had witnessed the wax and wane of many enthusiasms which had had their day. He most rightly insisted that a mere skilful pair of hands, unless dominated by intellectual capacity and a high sense of responsibility, might become potential of more harm than good. He especially deprecated long tables of statistics. "The records," he observed, "of 1000 operations have no intrinsic value, unless they are accompanied by proof that the operations were absolutely needful; and the fact that recoveries took place does not necessarily justify them."

This Address was violently attacked in at least one foreign medical paper, § which concluded that Priestley

* 'British Medical Journal,' vol. ii, 1877, p. 181.

† 'The Nature and Cause of the Swelling of the Lower Extremities which sometimes happens in Lying-in Women.'

‡ 'British Medical Journal,' vol. ii, p. 284.

§ "Sir William Priestley, der von dem Uebersetzer als 'berühmter Gynäkolog' bezeichnet wird, während er ein berühmter Geburtshelfer ist, mag vielleicht die Ausübung der praktischen Gynäkologie alten Stiles in England einigermassen kennen, von den modernen Phasen der operativen Gynäkologie in Deutschland, Frankreich, in den Vereinigten Staaten mit ihren zahlreichen neuen Verfahren, mit ihren, Dank einer hochausgebildeten

did not know of the great "progress" in operating effected by Continental and American gynæcologists, the truth being that he knew certain phases of that "progress" only too well, or rather held that mere novelty is not necessarily anything of the sort. Like ourselves, Priestley never made light of good foreign work, operative or otherwise. Indeed, as we have seen, he, when more than mature in years, investigated the working of foreign lying-in hospitals with a thoroughness worthy of imitation. What he denounced was not only the abuse of statistical tables and the total neglect of after-histories, he objected more to certain pernicious developments of modern operative gynæcology, to the performance, for instance, of new operations at meetings and congresses. He was not prepared to welcome to our shores men only too eager to show us feats of operative legerdemain. The Obstetrical Society, as we know from its recent action, has actively supported Priestley's policy.

Another excellent piece of work which Priestley laid before the British Medical Association was his treatise "On Occasional Latency and Insidiousness of Grave Symptoms in Connection with the Puerperal State," * read in the Obstetrical Section, under the Presidency of Dr. Gervis, at the Cardiff Meeting. The four cases from his own practice were eminently instructive, in fact, this contribution was a model for obstetricians and practitioners. His "Recent Observations on Infant Feeding," † where he turned our attention to M. Budin's researches, was read at a branch meeting of the British Medical Association as recently as 1895.

Asepsis, grossartigen Resultaten, ihrer minimalen Morbidität und Mortalität hat er entschieden keine ausreichende Kenntnis," 'Monatsschrift f. Geb. u. Gynäk.,' vol. iii, p. 537; A review of a translation of Priestley's address by Dr. A. Berthold. I explained in my inaugural address, 1899 ('Trans. Obst. Soc.,' vol. xli) that Doyen was in one respect as conservative as Priestley (p. 117), and that Kelly and Olshausen were quite as averse to the indiscriminate removal of fibroids (p. 125).

* 'Brit. Med. Journ.,' vol. ii, 1885, p. 337.

† Ibid., vol. ii, 1895, p. 1401.

In 1887 Priestley delivered the Lumleian Lectures, the subject being "The Pathology of Intra-uterine Death." * To Reynolds' 'System of Medicine' he contributed articles on Metritis and Hæmatocele, and a second treatise on the latter pathological condition appeared in Allbutt and Playfair's 'System of Gynæcology' in 1896.

The last published work of Priestley's was an address "On Some Current Medical Controversies" delivered at the opening of the University College Medical School, Liverpool ('Brit. Med. Journ.,' vol. ii, 1896, p. 1117). A portion of this Address was reprinted for the Association for promoting Compulsory Registration of Midwives.

Sir William Priestley was in excellent health until December, 1899, when he was attacked with jaundice. This symptom was at first attributed to chill, but it increased, as though gall-stone obstruction were present. Fortunately, Mr. Godlee and Mr. Mayo Robson did not think that this condition was sufficiently evident to justify surgical interference, indeed, pancreatic disease was suspected; and after the patient's decease a new growth was discovered in the pancreas so placed that it could not be detected by palpation during life. In spring the patient's strength failed steadily; there was much pain towards the close, and death occurred on April 12th. The funeral service was conducted in part in Christ Church, Down Street, Mayfair, close to Sir William's town residence, and the interment took place at St. Margaret's, Warnham, Sussex, near his country seat. Her late Majesty and the Princess Christian sent gracious messages of sympathy to Lady Priestley.

I may conclude with the words of his colleague, Dr. Playfair, another of our past Presidents:—"Thus passed away a kind-hearted and loyal gentleman, beloved by all his friends—who were all who knew him, since he never made an enemy." †

* 'Brit. Med. Journ.,' vol. i, 1887, pp. 660, 714, 768, 811, 839.

† Obituary, Sir William Priestley, 'King's College Hospital Reports,' vol. vi, p. 19.

Four Ordinary Fellows, Dr. Grigg, Mr. Claremont, Dr. Horace Howell, and Dr. John Baptiste Potter, a past President, died in 1900.

William Chapman Grigg

is numbered amongst the numerous victims of the South African War, as he died at Wynberg Hospital on March 12th. He was in his sixty-first year.

Dr. Grigg was the son of a clergyman of the Established Church, who lived in the West of England. He was educated at Queen Elizabeth College, Guernsey, and studied medicine at King's College, Edinburgh University, Birmingham, Bristol, and Vienna. He became M.R.C.S. in 1863, and L.S.A. in 1864, M.D. of Edinburgh in 1870, and M.R.C.P. Lond. in 1872. For about two years he practised in Maida Hill, till in 1873 he became Obstetric Physician to the Westminster Hospital, Dr. Potter being at the same time elevated to the senior appointment. Dr. Grigg retained his position till 1893, when he gave up hospital teaching. He was also Physician to Queen Charlotte's Hospital.

Dr. Grigg, a business-like man, troubled little about advance in midwifery. He joined in the discussion on Sir W. Priestley's address on grave latent symptoms in the puerperal state, read at the Cardiff Meeting of the British Medical Association in 1885. He warned all medical men not to regard lightly hysterical symptoms developing themselves during convalescence, or rheumatoid pains of the joints, as they are often the precursors of grave mischief.* But he did not, I understand, lay great store on systematic antiseptic and aseptic precautions.

One year previously Dr. Grigg made a remarkable statement in a medical paper† about the use of vinegar,

* 'Brit. Med. Journ.,' vol. ii, 1885, p. 339.

† Ibid., vol. i, p. 56.

an old popular remedy in post-partum hæmorrhage. On one occasion, he declares, when neither ergot nor ice was at hand, he ordered a wineglassful of pure brandy. The uterus, he stated, contracted instantaneously, and the bleeding ceased. He then discovered that the careless attendant had given not pure brandy, but pure vinegar. Afterwards, he assures us, he tried large doses of pure vinegar with success and confidently recommended it, on the strength of his own experience and of reports obtained from his midwives, pupil-midwives, and house surgeons. I am informed by a colleague that Grigg's recent practice was to give an ounce and a half of vinegar in an equal quantity of water. The midwife who had most experience of his obstetric work states that it was used alone only in slight cases, ergot being always administered when flooding was severe. The vinegar, she found, was taken without difficulty, and appeared to produce contraction of the uterus within a minute, that is to say, more rapidly than ergot, but she was not certain that the contraction was maintained as long as when ergot was given.

I may also note an interesting report of a case in Grigg's experience where six women in the same family had borne triplets;* and his note on obtaining pure vaccine-lymph by letting fall a drop of glycerine on a vesicle and gently rubbing it with a blunt pin. The lymph then transuded into the glycerine within two or three minutes without rupture of the vesicle. He claimed his method as original, and declared that in his first 200 cases, then completed, he had not met with one single failure.†

Dr. Grigg took an active part in the foundation of the British Gynæcological Society, of which he ultimately became a President. Probably, however, the most useful if not the best work he ever did was the discharge of his

* 'Brit. Med. Journ.,' vol. i, 1890, p. 541.

† Ibid., vol. i, 1888, p. 792.

duties as Honorary Secretary of the Metropolitan Counties Branch of the British Medical Association, which he held for many years in conjunction with Dr. Alexander Henry.

He was married but had no children. Only fourteen months after his wife's death, he himself died, far away in South Africa.

The sad story of Dr. Grigg's death has been recorded by Mr. Makins.* Dr. Grigg arrived in Africa in January, 1900. His services were accepted by Surgeon-General Wilson, and he was sent to the camp of the Modder River, where he attended to the cases of typhoid fever. But the bad diet and insanitary conditions of the camp soon told upon him. He fell very ill, and was brought down to Wynberg and placed under Major Simpson, R.A.M.C., and Dr. Jameson. Dr. Tooth, Physician to the Portland Hospital, saw him several times in consultation. He was stricken with a severe attack of typhoid fever, and in spite of all care died of exhaustion, his intellect remaining clear to the last, and he much appreciated the visits of Sir W. MacCormac, Dr. G. Stoker, and Mr. Osborne; he also had the comfort of being skilfully and tenderly nursed by a fellow parishioner. On March 13th, the day after his death, he was buried at Wynberg Cemetery with full military honours.

A memorial service was held at Christ Church, Down Street, Mayfair, on March 21st. The vicar, the Rev. H. R. Rowsell, referred in graceful terms to the deceased, who had held the office of churchwarden at that place of worship for twenty-five years.

Claude Clarke Claremont

died at Bognor on May 27th, aged seventy-seven. He studied at University College Hospital, and qualified as M.R.C.S. in 1855. In 1859 he received the diploma of

* 'Brit. Med. Journ.,' vol. i, 1900, p. 880.

L.S.A., and in that year, the first year of our Society, he was one of the first to join us. He was then in practice in Thorney Place, Oakley Square; afterwards he moved to Harrington Square, N.W., and finally settled at Millbrook House, Hampstead Road, where he practised for nearly thirty-five years before his retirement in 1899. He held the appointment of Public Vaccinator to St. Pancras. In 1896 he was a member of our Council. Two of his sons, Dr. Claude Clarke Claremont, of Southsea, and Mr. L. B. Claremont, L.R.C.P., M.R.C.S., of Haverstock Hill, are members of our profession.

Horace Sydney Howell

died, aged sixty-two, on December 14th, at his residence, Boundary Road, South Hampstead.

He was educated at St. Bartholomew's Hospital, and became an L.S.A. in 1860, a Member and Licentiate in Midwifery of the Royal College of Surgeons of England and L.R.C.P. in 1861, an M.D. of St. Andrews in the succeeding year, and an F.R.C.S. in 1872. In 1877 he was elected a Fellow of our Society.

After serving as Resident Medical Officer at the Kent County Ophthalmic Hospital, Maidstone, he took to practice, and resided for many years at South Hampstead. He was appointed Surgeon to H.M. Royal Italian Opera, and in consequence was called down to Brighton in 1874 to attend the illustrious *prima donna*, Mlle. Tietjens. She was suffering from strangulated hernia, which he successfully reduced by taxis. He naturally gained the lady's confidence, and was again consulted by her in 1877, this time on account of an abdominal tumour. Sir Spencer Wells performed an exploratory operation, but irremoveable malignant disease was discovered; the patient died five months later. Dr. Howell then published

"The Medical History of the Case of the late Mlle. Tietjens," * which excited great attention at the time.

Dr. Howell wrote a short note on "An Alleged Typhoid Epidemic" † in 1877, but did not contribute any papers to our Society. He had long been ill before his decease. He suffered sadly from pains, apparently due to gall-stones, and, as in the case of Sir William Priestley, the true condition, a new growth of the left kidney in this instance, for long baffled diagnosis.

John Baptiste Potter.

At our January meeting last month I had to report with deep regret the death of Dr. Potter, whose name is so intimately associated with this Society, and who was present at a meeting of Council so recently as December 14th.

John Baptiste Potter came of a very musical family.‡ His great-uncle was a well-known flute-player. His father, Cipriani Potter, son of a professor of music, was named after Giovanni Battista Cipriani, painter and teacher of music, whose Christian name was given to our deceased colleague. Cipriani Potter was a pupil of Attwood, whose teacher was Mozart. He received instruction from other great masters, and when in Vienna in 1817 was befriended by Beethoven, who revised his compositions. Skilled as a pianist, Potter introduced to British audiences much of that great man's work, so that, as Mr. Walter Macfarren says, his pupils, who included Sterndale Bennett, Ciro Pinsuti, and the brothers Mac-

* 'Lancet,' vol. ii, 1877, p. 533.

† Ibid., vol. i, 1877, p. 927.

‡ For the above information I am largely indebted to Mr. Walter Macfarren, who wrote a short sketch of Cipriani Potter in the 'R. A. M. Club Magazine' for October, 1900, and to the article on that musician in Leslie Stephen and Sidney Lee's 'Dictionary of National Biography.' Cipriani (1727—1785) was one of the first Royal Academicians.

farren, could proudly boast themselves the grandchildren of the immortal tone-poet. Cipriani Potter was Principal of the Royal Academy of Music from 1832 to 1859, and died in 1871.

His son, our late colleague, was also musical, but decided to live by the practice of our profession. He was born in London in 1839, and educated at Kensington Grammar School. Like Sir William Priestley, he began life as apprentice, working under Dr. Sloman, of Farnham. In 1858 he entered University College Hospital, qualified as M.R.C.S. in 1862, and, proceeding to Edinburgh, took the degree of M.D. in 1863. He became a Fellow of the College of Physicians in 1881. After qualification he held for a year or two the appointment of Resident Surgeon to the Birmingham General Lying-in Hospital. In 1865 he came to London, and practised first in Craven Hill; in 1866 he undertook sanitary work for a time during the cholera epidemic. He afterwards moved to Hertford Street, Mayfair, and to Maddox Street, finally settling in George Street in 1872. In 1868 he was made Physician to the Royal Society of Musicians, and next year he became Physician-Accoucheur to the St. George's and St. James's Dispensary. In December, 1869, he and Dr. Edis were candidates for the appointment of Assistant Obstetric Physician to the Westminster Hospital.* The two candidates agreed to abide by the result of a spun coin, and Dr. Potter won the toss and was elected. In 1874, on the retirement of Dr. Frederick Bird, he was raised to the senior appointment, which he held with the Lectureship on Obstetric Medicine to his death, Dr. Grigg, who also died last year, taking the place vacated through Potter's promotion. Since 1895 Potter was Treasurer to the Westminster Hospital Medical School. Always excelling in such duties, he was for the last eleven years Acting Treasurer of the Society for the

* My thanks are due to Dr. Allchin and Mr. Macnamara for the above information concerning Dr. Potter's connection with the Westminster Hospital.

Relief of Widows and Orphans of Medical Men. Dr. de Havilland Hall and Mr. Christopher Heath both inform me that Potter discharged the duties of the office with the utmost regularity and zeal. He had a great command of figures, and his kindly presence will be much missed at the quarterly meetings of the Board of Directors.

As these gentlemen found Dr. Potter, so we knew him to be. Indeed his life was very intimately associated with the Obstetrical Society, and he was most useful to it, as he had both zeal and ability, fitting him for Council and Committee work. He joined us in 1864. He troubled little about papers, his only contribution to our 'Transactions' was a report of a "Case of Pregnancy, complicated with Malignant Growths in the Vagina and Rectum."* Premature labour was induced when the patient was about seven and a half months pregnant; the child was saved. Colotomy was afterwards performed by Mr. Macnamara. Potter also showed two specimens and an instrument. In 1872 he was elected a member of the Council, and from that date forward was constantly associated with the management of our Society. He was skilled in procedure, and routine work was to him a pleasure. How many of us wish that we resembled him in both respects! His advice was sound and his action determined when difficulties arose. In 1885-6 he was President, after having been Treasurer in 1882-4, and he was Trustee when he died. Possibly, like many experts at council boards, he was over-cautious, and apt to distrust even necessary innovations, but he understood that which more brilliant men do not always understand—duty and seriousness in the general work of a Council. Potter believed in a principle enunciated by Guicciardini, the great Florentine politician and historian, quoted thus by Mr. Morley: "A sage Italian, once warned statesmen that there is no worse thing in all the world than levity.

* 'Trans. Obst. Soc.,' vol. xx (1878), p. 110.

Light men are the very instruments for whatever is bad, dangerous, and hurtful."* To Potter, in great part, is due that earnestness which, as I can testify, distinguishes our Council. My own task would have been harder without him, and as for my colleagues, they, like John Baptiste Potter, men of weight elsewhere, would scorn to act as light men at the Council board. Greatly through his example we endeavour to take a Council Meeting seriously throughout, not only when something of special interest is under discussion.

Dr. Potter's colleagues, pupils, and head nurses, all admired him for his extreme humanity to the patients under his charge at the Westminster Hospital, that humanity which he taught was as necessary to the doctor as professional knowledge. He was well known to many of us as co-trustee, with Sir Dyce Duckworth, to the Edinburgh University Club. He was a good musician, and loved archæology and country walks; for many years he took his holiday at Lyme Regis. At his death he had been married for twenty-eight years, and he leaves a widow, a son, Mr. John Wagner Potter, and two daughters. Socially Dr. Potter was exceedingly pleasant, and he possessed the valuable and popular faculty of never forgetting faces.

Though no more, Dr. Potter will always be remembered here with respect and pleasure. As was said of another manly, independent spirit,—

> "Ne le plaignez pas trop; il a vécu sans pactes,
> Libre dans sa pensée autant que dans ses actes." †

"Clever men," Professor Huxley would say, "are as common as blackberries; the rare thing is to find a good one."‡ That John Baptiste Potter was a good man none of us can deny.

* 'Oliver Cromwell,' p. 139.

† Rostand, 'Cyrano de Bergerac,' act v, sc. 2.

‡ 'Life and Letters of Thomas Henry Huxley,' by his son Leonard Huxley, vol. ii, p. 404.

The time has now come for me to resign my office. Two years ago I remarked that, being the twenty-first President, I began a new score, and trusted that I should not leave any old scores to be wiped out. I hope that my wish has come true. I felt honoured as being the first surgeon raised to the Chair. Napoleon let forty centuries look down upon his army; you have allowed me to stride across two. Let me express my deepest thanks to the Honorary Secretaries, Drs. John Phillips, Herbert Spencer, and Amand Routh, to the Council, and to the Society itself, for the unfailing support which they have afforded me throughout my term of office, which has been as pleasant and peaceful as Dr. Cullingworth, when he resigned, hoped it would be.

I leave the Chair with some regret:

> "For who, to dumb forgetfulness a prey,
> This pleasing, anxious being e'er resigned."

But *resurgam*. I do not mean to leave the warm precincts of our cheerful meeting-room. I intend to join once more in your discussions.

I am very gratified to feel that my successor is a teacher of obstetrics in one of our largest metropolitan schools, an obstetrician who has held with credit several offices of responsibility on the Council, and who has written many papers of high value. He will be ranked in the history of medicine as one of those who have advanced transfusion as a remedy for shock and hæmorrhage. I sincerely believe that his term of office will be enjoyable to himself and profitable to the Society.

In proposing the vote of thanks to the President Dr. Champneys said that, strange as it would seem, Mr. Doran had been "an experiment," and he thought that the Society owed him (the speaker) a debt of gratitude for having suggested a departure in his case from the routine of electing officers exclusively from the ranks of the obstetric physicians. When he proposed

Mr. Doran as one of the Secretaries there were some misgivings as to whether he would be able to perform all the duties, especially such as concerned midwifery proper, including the examination of midwives. He thought that the experiment had succeeded admirably, principally by virtue of the infinite pains which Mr. Doran (unlike many brilliant men) expended upon everything he undertook. He had himself heard Mr. Doran examine midwives, and was surprised at the amount of knowledge which he had acquired.

As President Mr. Doran had been a great success. No Fellow of the Society was better known all over the world for the excellent scientific work which he had done. He had been indefatigable in the Chair, and the meetings had certainly never been dull. The only pity was that a phonograph had not been placed in front of the Chair two years ago to gather up the parentheses and asides, which did not appear in the reports of the meetings. He begged to move—

"That the thanks of the Meeting be given to Mr. Alban Doran for his address, and also for the manner in which he has presided over the Meetings of the Society during his term of office, and that he be requested to allow his address to be printed in the next volume of the 'Transactions.'"

This was seconded by Dr. J. Watt Black, and carried by acclamation.

MARCH 6th, 1901.

Peter Horrocks, M.D., President, in the Chair.

Present—34 Fellows and 4 visitors.

Books were presented by the American Gynecological Society, Dr. Herman, Mr. Walter Heape, and the Middlesex Hospital Staff.

Guy Bellingham Smith, M.B., B.S.Lond., was admitted a Fellow.

The following gentlemen were proposed for election :—Joseph Cater, M.A., M.B., M.D.Brux.; Francis Hamilton Ellis, M.B., B.C.Cantab.; and Henry Holman Weekes, M.D.Brux., L.R.C.P.Lond.

The following gentlemen were elected Fellows of the Society :—Reginald Courtney Gayer, L.R.C.P.; William Sampson Handley, M.S., M.D.Lond., F.R.C.S.Eng.; Edward Angus Johnson, M.B., B.S.Melb., L.R.C.P.Lond. (Prospect, South Australia); Timothy Leahy-Lynch, L.R.C.P., and L.M.Edin.; Llewellyn Powell, M.B., B.C.Cantab.; James Hutchinson Swanton, M.D., M.Ch.; Thomas George Wilson, M.B., Ch.M.Sydney (Armidale, New South Wales).

CYSTIC FIBROID WITH CARCINOMA OF LEFT OVARY AND RIGHT FALLOPIAN TUBE.

By Dr. Robert Boxall.

(See Plates V, VI, VII, and VIII.)

This specimen, comprising the greater part of the uterus with its appendages, was removed by operation from an

unmarried lady of forty-eight. She complained of increasing swelling in the abdomen for eight months, but of no pain or interference with the menses, and of only trifling increased frequency in micturition. In spite of good appetite she had lost flesh.

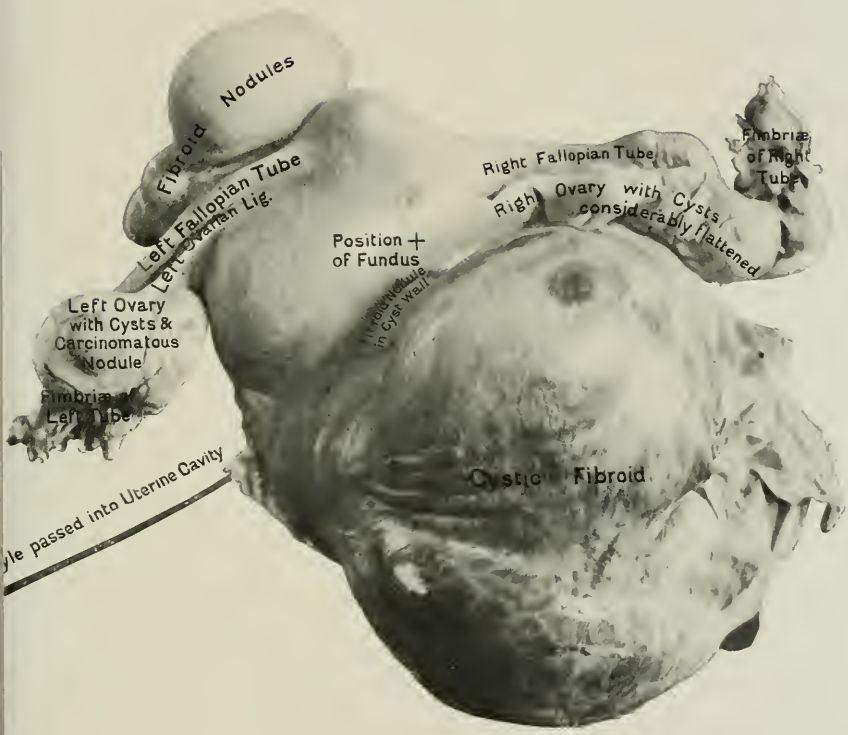
The cystic fibroid, which appears to have sprung from the right side of the uterus about the level of the inner orifice, was found embedded in the pelvis, but had risen up carrying with it the uterus and appendages and the peritoneum of the pouch of Douglas. During the last few weeks growth had been rapid. At the time of the operation it almost filled the abdomen, and the posterior vaginal wall was much bulged downwards, especially on the right side.

The abdomen was opened in the middle line, and about double the ordinary amount of free fluid was found. The cyst was tapped, and proved to contain light olive-green fluid which coagulated on standing. As it was found impossible to separate the cyst from the uterus, hysterectomy was decided on. After both sets of ovarian vessels had been tied, and when the uterine vessels had been dealt with on the left side, a curious and unforeseen accident occurred. The patient became suddenly collapsed; no obvious bleeding had occurred. But it was found that copious hæmorrhage was taking place into the cyst from a venous sinus situated on its inner wall, large enough to admit the index finger. This bleeding was controlled temporarily by enlarging the opening into the cyst and turning it inside out. The cyst was afterwards packed with cotton and separated from its bed in the pelvis. A sufficiently large flap had been cut from the anterior wall of the uterus to cover the entire stump, and the peritoneal cavity was completely shut off. After the operation was completed, saline injections were given by the rectum, and the patient rallied well.

The nature of the large cyst is evident from the presence of fibroid nodules both on its inner and outer surfaces, and from the microscopic section taken through the thickness

DESCRIPTION OF PLATE V,

Illustrating Dr. Boxall's specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube. Posterior view.

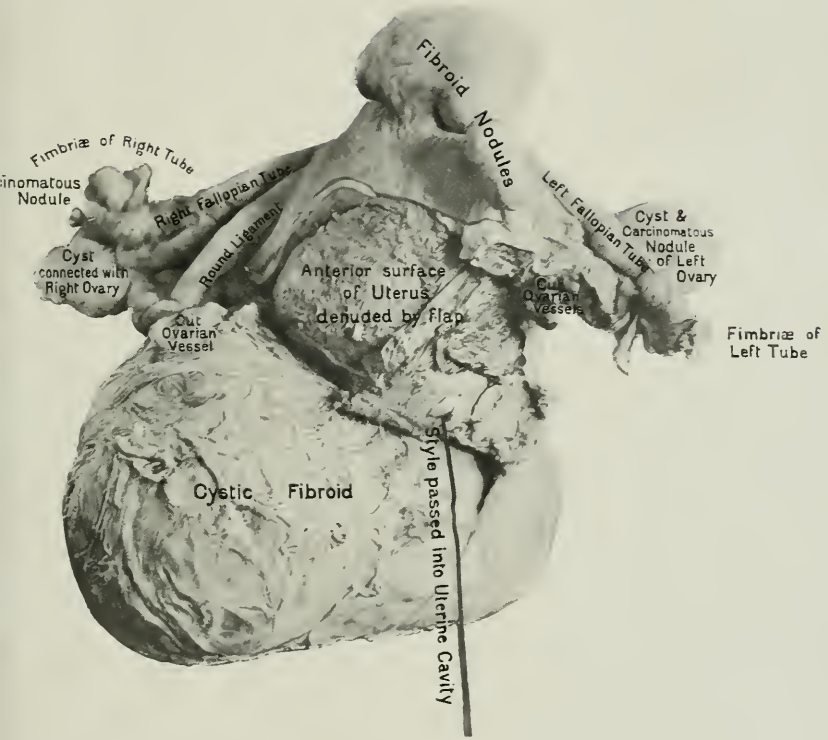


Illustrating Dr. BOXALL's specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube.

Bale and Danielsson, Ltd.

DESCRIPTION OF PLATE VI,

Illustrating Dr. Boxall's specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube. Anterior view.



ustrating Dr. BOXALL's specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube.

Bale and Danielsson, Ltd.

DESCRIPTION OF PLATE VII,

Illustrating Dr. Boxall's specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube.

Fig. 1.—Primary Carcinoma of the Left Ovary. Microscopic section under a high power.

Fig. 2.—Secondary Carcinoma of the Right Fallopian Tube. Microscopic section under a high power.

R. Boxall del.

FIG. 1.

R. Boxall del.

FIG. 2.

Illustrating Dr. BOXALL'S specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube.

Bale and Danielsson, Ltd.

DESCRIPTION OF PLATE VIII,

Illustrating Dr. Boxall's specimen of Cystic Fibroid with Carcinoma of the Left Ovary and Right Fallopian Tube.

Secondary Carcinoma of the Right Fallopian Tube. Microscopic section under a low power.

R. Boxall del.

Illustrating Dr. BOXALL'S specimen of Cystic Fibroid with Carcinoma of Left Ovary and Right Fallopian Tube.

Bale and Danielsson, Ltd.

of its wall at a distance from the uterus. The small nodule, no larger than a cherry stone, at the fimbriated end of the right tube, under the microscope shows unmistakable evidence of cancer.

Dr. Boxall remarked that from the history and from his examination of the patient he was prepared to find a papillomatous cyst which had ruptured. But the evidence of malignant disease revealed by the microscope had come upon him as a surprise. He hoped that the disease would be found on further investigation to be limited to the small nodule from which the section had been taken.

Dr. Cullingworth regarded the specimen as of exceptional interest and importance, and trusted that the exhibitor would furnish the Secretaries with a full report of the case. The tumour seemed to him to have burrowed beneath the peritoneal covering of the pelvic floor rather than into either of the broad ligaments, both of which formed part of the specimen, and appeared to be normal.

The specimen was referred to a committee consisting of Drs. Lea, Lockyer, Boxall and Mr. Targett (see page 144).

SARCOMA OF UTERUS.

By Dr. Arnold W. W. Lea.

Dr. Arnold W. W. Lea showed a specimen of sarcoma of the uterus with microscopic sections from a patient aged 62, whose menopause had occurred at 50. She had suffered from uterine hæmorrhage and pelvic pain for four months. Then symptoms of diffuse pelvic cellulitis developed, causing retention of urine and partial occlusion of the rectum. The anterior vaginal wall bulged downwards, owing to exudation between the vagina and bladder.

The cervix was atrophied; the body of the uterus was much enlarged and acutely retroflexed. The patient died

from exhaustion and septic poisoning. No operation was attempted. The pelvic organs were removed entire after death.

The uterus measured four and a half inches in length. The cervix was senile, otherwise normal. On section the anterior wall was occupied by a firm growth involving its whole thickness and fungating on the peritoneal surface anteriorly. There was no peritonitis. The uterus was quite mobile.

The ovaries, Fallopian tube, and broad ligaments were normal. The bladder was dilated, and showed evidence of cystitis. The floor of the pelvis was occupied by a firm mass of exudation compressing the urethra and vaginal wall, and also producing extreme stenosis of the rectum for one inch and a half of its length.

Microscopically the growth in the uterus was composed of large round-cells with deeply stained nuclei. The stroma was scanty, but contained large blood-vessels.

The growth was evidently interstitial in origin, the mucosa being smooth and atrophic.

Mr. Alban Doran observed that this case reminded him of another, under his own care, on which Dr. Cuthbert Lockyer intended, he understood, to make a report to be read before the Society. Dr. Auty, of Willesden, had correctly diagnosed malignant disease of the uterus. The patient showed symptoms of sloughing fibroid, and Mr. Doran endeavoured to improve her condition before attempting an exploratory operation. But she died with general septic symptoms. At the necropsy Dr. Bosanquet detected sarcoma of the uterus with metastatic deposits in the lungs. Dr. Lockyer had made microscopic preparations of the uterine and pulmonary growths, and found that they were sarcomatous and, in some respects, resembled deciduoma malignum, about which so much had been written. He had obtained fresh clinical facts which had not been communicated to Mr. Doran; they made it possible that early abortion had occurred. Those who did and did not believe in deciduoma, might alike find comparison of Dr. Lea's and Dr. Lockyer's specimens highly instructive.

The specimen was referred to a committee consisting of Drs. Lea, Lockyer, Boxall, and Mr. Targett (see page 145).

R. E. N. del.

Illustrating Dr. WILLIAM DUNCAN's specimen of Multiple Myxomatous Polypi from Cervix Uteri.

Bale and Danielsson, Ltd.

DESCRIPTION OF PLATE IX.

Illustrating Dr. William Duncan's specimen of Multiple Myxomatous Polypi from Cervix Uteri.

MULTIPLE MYXOMATOUS POLYPI FROM THE CERVIX UTERI.

By Dr. William Duncan.

(See Plate IX.)

The patient from whom the specimen was removed is a widow aged 57; she was admitted into the Middlesex Hospital on May 16th, 1900. Her history is that the catamenia were quite regular up to two years ago (when she was fifty-five). Has had two daughters (aged twenty-nine and twenty-five respectively); both labours normal.

Eighteen months before admission a polypus was removed for continuous hæmorrhage, which lasted six months. A year later the patient underwent another operation for a recurrence of the hæmorrhage; since then there has been more or less constant slight hæmorrhage, until a week before admission, when she had a severe loss. She thinks that she lost quite a pint of blood.

Operation.—Under gas and ether the cervix was exposed thoroughly, and a good view of the mass obtained. It was composed of between twenty and thirty polypi of various sizes, attached to a single base; the largest was of the size of a walnut, the rest were mostly from one to one and a half inches long and one third of an inch wide; the colour of the polypi varied from dark red to amber.

The mass was removed by scissors, and then the cervical canal thoroughly dilated. Digital exploration of the uterine cavity proved the endometrium to be much thickened, and in the right angle formed by the roof and lateral wall another hard polypus was felt, the size of a haricot bean. Both this polypus and the endometrium were thoroughly removed, and the uterine cavity packed with iodoform gauze for forty-eight hours.

The patient made an uninterrupted recovery.

Microscopically the tumour was made up of myxomatous tissue undergoing fatty degeneration, and with some hæmorrhages into it.

UTERINE FIBROIDS REMOVED BY INTRA-PERITONEAL HYSTERECTOMY.

Shown by Dr. William Duncan.

The specimens were from two cases, and made the ninety-ninth and hundredth consecutive cases of this operation which Dr. Duncan had performed. There were four deaths; but the last fifty-three operations were perfectly successful; this good result was attributed to the plan of injecting Liq. Strychninæ ♏iij three times daily for several days before and after operation, and thus diminishing the danger from heart failure and shock, which are the great things to be feared after hysterectomy.

Dr. Duncan did not think such good results as those recorded could be obtained by any other operation (such as pan-hysterectomy) for fibroids.

Dr. Aust Lawrence (Bristol) congratulated Dr. Duncan on his results (statistics which proved how safe an operation the intra-peritoneal form of hysterectomy has become). He also drew attention to the fact that it is not the size of the fibroid uterus which should determine the question of operation, but rather the clinical history of the woman, as some large tumours may be safely left, whereas some small ones, on account of severe hæmorrhages, must be removed, although as a rule the smaller forms of tumour do not need operation.

UTERUS BICORNIS UNICOLLIS.

By Dr. W. F. Victor Bonney.

This specimen was removed from a hydrocephalic fœtus delivered at Queen Charlotte's Hospital by Dr. Gow. It showed two bodies, partially fused below, but distinct above, and separated by a median septum reaching the level of the internal os. The cervix was single, and so was the vagina, but the latter presented a median ridge indicative of the line of fusion of the two Müllerian ducts. The ovaries and tubes were normal. The specimen was in excellent preservation, displaying very clearly its abnormalities.

The fœtus presented other defects of development, for, in addition to the hydrocephalus, there was complete absence of hard and soft palates, together with double harelip. The septum ventriculorum was deficient, and the aorta came off from the right ventricle.

Dr. Bonney referred briefly to the difficulties in the diagnosis of this condition, and recalled to the Fellows of the Society the cases reported by Dr. Cleveland in the 'Transactions' for 1884, in which two patients were accustomed, at the time of their confinements, to expel, after the birth of the placenta and child, a complete cast of uterine decidua from the unimpregnated half of the uterus.

The second patient ultimately died from sapræmic changes taking place in the partially retained decidua. The bicornute condition previously suspected was then proved by autopsy.

He referred also to the phenomena of super-fœtation and super-fecundation, and said that many cases, no doubt, could be explained by the presence of uterus bicornis unicollis.

Dr. Campbell Pope and Dr. Ratcliffe had also reported cases of pregnancy occurring in these abnormal uteri, and Mr. Alban Doran had detected a uterine myoma in connection with the same condition.

The diagnosis in most cases could only be made with certainty by manual examination after labour, but where a patient passed a decidual cast after the expulsion of the placenta there would be strong reason to suspect that this condition existed.

INAUGURAL ADDRESS.

A Century's Progress in Midwifery and Diseases of Women.

To be unanimously elected President of the Obstetrical Society of London is the highest honour that can be conferred in this country in the obstetric branch of medicine. Anyone who will read the list of Presidents from the first, Dr. Edward Rigby, down to the last and not least, Mr. Alban Doran, will recognise that the Fellows of this Society have been able to select, as their President, gentlemen who were representative of all that was best in obstetric science and art in their day and generation. The records of their work, as shown in the 'Transactions' of the Society, prove that each successive President has striven to carry out the objects of the Society, and to improve in every way its position in the scientific world. It has been my privilege to listen to nine Inaugural addresses, delivered by the last nine Presidents. Each one of those addresses impressed me as worthy of this eminent Society.

From these considerations you will understand that I feel greatly honoured to have been selected as your President, and at the same time I feel that the responsibility attaching to the office is great.

Nevertheless, I shall do my best to conduct the affairs of the Society in the same successful manner in which they have been carried on by my illustrious predecessors, and I feel confident that, by the help of the other officers and of the Fellows generally, we shall be able to make substantial progress in the science and art of obstetrics and gynæcology.

As the first elected President of the twentieth century,

it appears to me that I could not do better than address a few words to you on the practice of midwifery and diseases of women a hundred years ago, pointing out the great advances that have been made by a retrospective survey, and to mention briefly the work to be done in this present century, especially that which is now more or less ripe for completion.

At the end of the eighteenth century and the beginning of the nineteenth we have text-books written by eminent obstetricians of that period, such as Drs. Denman, Osborn, Burns, Hamilton, Nisbet, and others. One is able, therefore, to form a very fair estimate of what was thought and practised at that time. A few quotations from the authors above mentioned will give you a better idea than anything I might say.

Labour was classified a little differently by different writers. Some followed Smellie, whose division was into—

1st. Natural: where the head presents and the child is expelled by the natural pains.

2nd. Laborious: when the head presents, but the birth is uncommonly protracted, or requires the interposition of art.

3rd. Preternatural: when any other part but the head presents, or when the feet are delivered before the head.

Denman added a fourth class, namely, Complex, which comprehended labours complicated with flooding, convulsions, prolapse of the cord, etc. (*vide* Hamilton, p. 188).

Nisbet divided them into natural, protracted, instrumental, manual, and anomalous.

Natural Labour.

In the management of natural labour most practitioners of the day were imbued with the idea that women differed from all other female animals in the help required during the bringing forth of their young. Thus Dr. Osborn in his essays on the practice of midwifery writes:—"If we

admit, according to the Mosaic account of the creation of the world, that human parturition was distinguished by the severity of its pains, by its difficulty and dangers, from the same operation in other animals, as a cause annexed to the fallen nature of man; and that 'in sorrow thou shalt bring forth children' was announced to our first parent as a punishment, which we are taught it was the intention of the Deity should continue to afflict human nature as long as the world endured, it will serve to illustrate one principal subject of this essay . . . to inquire by what peculiarity in the human physiology this great natural evil has been so completely effected, and must continue to be so inevitably annexed to the female body." Further on he says :—"Thus the erect position of the human frame, that singular mark of pre-eminence, exposes woman to pain and difficulty in natural parturition from which the subordinate quadruped is almost entirely exempted by the horizontal position of her body."

Dr. Osborn, therefore, considered that even natural labour in women was attended by so much danger and difficulty, that the highest skill in the art of midwifery was essential for the proper and safe conduct in all cases.

Dr. Alexander Hamilton, in his 'Treatise on the Management of Female Complaints' (6th edit., 1809), says :—"The sufferings of a woman during child-bearing have been compared to the fatigues of a person on a journey; and this idea has led practitioners to divide the parts of a labour into three stages." Then, referring to the skill required by accoucheurs he writes, "It could scarcely be believed that, in the present advanced state of science, any physician could have had the hardihood to have avowed, as his own solemn opinion, that women in labour ought to be assisted by their companions and not by persons who have studied the mechanism of the process. . . . . Any attempt to refute such an opinion might appear as ludicrous as it would be to state arguments to prove that the works of the finest gold watch could not be so well mended by a bricklayer as by a watchmaker."

Hence, although admitting that 98 or 99 per cent. of labours are natural and that interference is bad, one finds all authorities recommending at least some interference in every case. Thus Nisbet in his 'Clinical Guide' writes, "It may be laid down, then, as a general rule in most natural cases, when no particular urgent symptoms occur, that the management of the placenta should be trusted to nature; by which is meant, that the accoucheur, waiting a certain time, till the patient complains of slight uneasiness in the uterine region, and previously ascertaining by the external feel of the abdomen the state of contraction, should gently assist the uterine efforts by twining the cord round the fingers of one hand while the other is applied to it higher up, within the vagina, giving the proper direction for the exit of the placenta by pulling the cord in a line with the centre of the pelvis, or as much as possible towards the sacrum.

"If the uterine efforts are excited, the cord will be felt to lengthen at each pain; if the complete separation has taken place one pain will be sufficient; if not, let an intermission take place."

Again, Osborn writes:—"For whether at the commencement of the labour, or at the first opening of the os uteri by the membranes and waters, or the first entrance of the child's head into that part, or, indeed, during its whole progress through the cavity of the pelvis, every interference or pretended assistance is equally improper and injudicious, because it may be injurious and cannot be beneficial."

After giving this advice, which one must admit was most excellent, he strongly urges the necessity of interference and help when the head begins to distend the perineum. The great danger is that it may be ruptured, and to prevent this pressure is to be made on the child's head through the perinæum, so as to prevent its too quick delivery. Thus he writes:

"At the same time that the perineum is strengthened by the application of the left hand, the right should be

constantly applied to the vertex of the child's head, from the instant it has emerged from under the arch of the pubis and begun to enter the os externum [he means the vaginal outlet], by this means strenuously (in every pain) resisting its progress and obliging the distension of soft parts to be as gradual and the passage of the child's head through them as deliberate as possible."

Dr. Denman, who was a great advocate of leaving things to nature, speaks of "the abominable custom of giving assistance, as it is called, by dilating the internal and external parts artificially." He deprecates advising the patient to help herself "by urging with all the voluntary force they are able to exert beyond the dictates of nature; as if a labour was a trick to be learned, and not a regular process of the constitution."

This voluntary bearing down on the part of the patient is so likely, he thinks, to cause the head to be born too quickly, that he advocates pushing the head back to neutralise this extra force. He mentions, however, that while some recommend that the perineum should be slipped backwards so as to uncover the head, and others recommend that the perineum should be pressed against the head to prevent too speedy delivery, and so rupture of the perineum, yet it is better to do neither one thing nor the other, but to leave it all to nature, except in the instance mentioned when the woman is urging with all her voluntary power.

Denman recommends that the placenta be left to itself, unless it should descend slowly, or the patient is much disturbed, in which case "the practitioner may take hold of the funis, and by gently pulling in the time of a pain and in a proper direction, by the most moderate action favour its separation and descent."

He seems to think that this traction on the cord is indicated and justified by the following:—"When the young has been a short time expelled, carnivorous animals, apparently feeling pain, lay hold of the navel-string with their teeth, in order to extract the placenta. It is prob-

able that a woman in a state of nature would with her own hands give something like the same assistance ; and in the force I use to bring down the placenta I generally bear in mind this circumstance."

Preternatural Labours.

In the delivery of cases that presented by parts other than the head the practice was not different from our own to any important extent, but when one comes to cases requiring instrumental aid we find a great difference of opinion regarding the relative merits of the vectis or lever and the forceps.

Denman was the champion of the former, Osborn of the latter. Some used the vectis as a lever of the first kind, making the pubic arch a fulcrum. The damage thus done to the urethra or neighbouring parts led others to tie a piece of string to the shank of the vectis, and pull on that with one hand whilst holding the handle with the other, thus converting it into a lever of the third kind. Denman preferred the vectis to the forceps, because it could be applied without the patient's knowledge, and he alleged that he had never heard of a case in which a woman had been delivered with forceps where the vectis had failed ; whereas there were cases in which the vectis had succeeded when more force had been required than the forceps enabled them to exert.

Osborn, who was a colleague of Denman's as a teacher of midwifery in London, argues the various points very ably in favour of the vast superiority of the forceps.

Craniotomy.

The mother's life being considered infinitely more important than that of the child, no hesitation was given to the destruction of the latter if it afforded even a slightly improved chance for the mother.

Hamilton (op. cit.), after describing the method of

perforation and the breaking up of the brain by means of the crotchet, says: "the second part of the operation, viz. the extraction, was formerly attempted immediately after the brain was evacuated; but sometimes this was found impracticable; and as experience showed that after an interval of a few hours, the difficulty was often easily surmounted, practitioners were led to inquire into the propriety of the general rule. The result was that the rule alluded to was found to be a very improper one; and Dr. Osborn has clearly proved that many advantages accrue from delaying the extraction for twelve or twenty-four hours, according to circumstances, after the discharge of the contents of the cranium. By this practice the strength of the patient is recruited, all injurious pressure being removed, while at the same time the process of putrefaction, taking place in the body of the infant, the extraction is more easily accomplished, than it can be when the child is quite rigid."

Dr. Osborn who was largely responsible for this amazing procedure, gives in great detail the case of a woman who actually recovered after passing through the following treatment:

"E. S—, deformed in her spine and lower extremities, became pregnant when twenty-seven years of age. The working conjugate was not more than three quarters of an inch, and the widest antero-posterior diameter only one and three quarter inches. She came into the Store Street Hospital after she had been in pain for a day or two. The head was found high up above the brim, and the os uteri, although but little dilated, was soft and flabby. Tinctura opii was given, and soon after Dr. Osborn left her the membranes broke and the liquor amnii escaped. Next morning, being hot and thirsty, and her pulse very quick, ten ounces of blood were taken from her arm, and the bandage accidentally slipping off soon after her arm was tied up, she might perhaps have lost as much more before it was discovered.

Drs. Denman, Bromfield, and Walker were called in

consultation, and it was decided that an attempt should be made to deliver by craniotomy. Perforation was accomplished after repeated trials, and some of the brain having been scooped out with an ordinary spoon she was left all night, but did not sleep, owing to the pains. The pulse became extremely quick and the discharge from the vagina very considerable in quantity, and most abominably fœtid. Drs. Bromfield, Denman, and Hunter saw her in the course of the day; she was examined besides by more than thirty students in midwifery, who were at that time attending Dr. Denman's and Dr. Osborn's lectures. The patient willingly permitted these examinations when Dr. Osborn explained to her the singularity of her case and the utility which might result from its being more generally known. Thirty-six hours after the perforation, when it was thought sufficient putrefaction had taken place, the crotchet was used to break up the vault of the skull. This proved a most difficult and prolonged task. Ultimately the calvarium was removed, and the base of the skull brought down edgewise. The thorax was then opened and the crotchet fixed into the sternum. By strong force, exerted for fifteen minutes, first one shoulder was brought down and then the other, and lastly, after opening the abdomen, the whole child was extracted in a most putrid state, after this final operation lasting three hours, and after having been in labour six to seven days. She sat up on the seventh day, acknowledging with great gratitude that she was then as well in all respects as in any period of her life."

When we come to cases of such difficulty that the child could not be born alive *per vias naturales*, we find that the obstetricians of that time, knowing that Cæsarean section was fatal in nearly every instance, avoided recommending or performing it until every other means had been tried. No matter how narrow the pelvis, they would set to work to diminish the size of the child's head by means of the perforator and crotchet, and there is no doubt that at that time, with the means and knowledge at their

disposal they did select the lesser danger of the two, so far as the mother was concerned.

Cæsarean Section.

Hamilton in his fifth edition on the "Theory and Practice of Midwifery," 1803, quotes Sir Francis Ould, who had lately written on the subject, and whose conclusions were as follows: "From reason, theory, anatomy, and everything consistent with surgery, that the Cæsarean operation must be certainly mortal." It is "a detestable, barbarous, illegal piece of inhumanity."

Dr. Osborn, also referring to Cæsarean section, writes: "Indeed, deplorably trifling must have been our advances in the science of midwifery, compared with other branches of the practice of physic or surgery, if at the end of the eighteenth century we are not able to banish from practice the only fatal operation which has continued to disgrace our profession for three hundred years."

Hamilton (op. cit.) says: "In Great Britain the operation has never yet proved successful in saving the life of the mother, although it has been performed thirteen or fourteen times."

Nevertheless, he argues most forcibly that whilst it may be perfectly justifiable to sacrifice all the chances of the child even to secure a bare possibility of saving the mother, yet there are cases where it is impossible to save the mother by destroying the child. As, for example, in cases of deformity of the pelvis, even greater than the case of Dr. Osborn—which was the smallest on record,—and in cases of rupture of the uterus where the child escapes into the abdomen, etc.

He gives details of two out of ninety-six cases that up to that time had been performed in Edinburgh, all the mothers having succumbed.

It is quite obvious on reading these cases that the patients died from septicæmia following upon the operation.

Symphyseotomy.

It was in 1768 that Sigault introduced the operation of

symphysiotomy. Dr. William Hunter preferred the use of the crotchet to division of the symphysis, but thought that possibly the latter might be found superior to Cæsarean section in a few rare cases, not to save the child, but to save the mother.

Osborn condemns it absolutely; and Hamilton, in the work already quoted, says "that up to 1803, thirty to forty cases had been published, the history of which enabled him to advise that division of the symphysis should be had recourse to *in no case whatever*."

Post-partum Hæmorrhage.

Dr. Nisbet, in his 'Clinical Guide,' published in 1800, writes: "From the rapid effects of hæmorrhage here its progress must be checked by the speediest means, of either inducing general deliquium or exciting contraction of the uterus. The first is effected by raising the patient instantly to the upright posture till fainting ensues. The second is performed by different ways of applying cold to the uterine region, as dashing cold water suddenly on the abdomen; applying cloths dipped in cold oxycrate to the back; injecting cold water with a bag and pipe into the uterus; and these failing, by mechanical irritation of the organ itself, introducing for this purpose a finger into the os uteri and rolling it round, so as to excite its contraction."

Burns recommends stimulating the uterus by passing the hand into its cavity, not to pull away the placenta, which, he says, would be dangerous and would not stop the bleeding, but to excite the uterus to contract. He also applies cold cloths to the belly and vulva, and if these things fail, he says "we must stuff the vagina and afterwards apply a firm bandage round the belly."

Hamilton recommends cloths soaked in cold water and vinegar to be applied to the naked belly, or even cold water poured on that point from a height. Opium also was given in large quantities to support the living powers.

Pyrexia.

Women were so often more or less ill and feverish during and after labour that Nisbet (op. cit.) writes: "Pregnancy may be defined as a certain inflammatory disposition of the body, or nearly approaching to it, attended with an increased frequency of the pulse, and other febrile symptoms. That such a disposition prevails we endeavour to prove—

"1. From the fizzy appearance of the blood drawn, which discovers at this time the buff coat, or separation of gluten on its surface, similar to that appearing in inflammatory disease, and also a defect of the oxygenous principle.

"2. From examining the state of pulse, which is found always fuller and some strokes quicker than previous to gestation.

"3. From a consideration of the phenomena that attend it, particularly in its more advanced stage."

And then he divides the diseases of pregnancy into three heads:

1. Those which arise from simple irritation, or the sympathetic.

2. Those which owe their origin to distension of parts and increased circulation into them, or the plethoric.

3. Those which join to this, the pressure of the gravid uterus acting as a mechanical cause, termed, therefore, the mixt.

Weed or the Ephemera.

This was one or more attacks of rigor resembling the fit of an intermittent, and terminating in a profuse sweat, which was the crisis, but apt, if not properly managed, to pass into continued fever.

Miliary Fever.

Defined as a "fever attended with a sourish smell and remarkable prickling of the skin, terminating at last in an eruption of red or white spots."

Puerperal Fever.

Most authors describe various grave conditions during the puerperium, such as acute peritonitis, inflammation of the uterus, suppression of the lochia, and puerperal fever, no doubt all being cases of puerperal septicæmia where one or other sign or symptom was most prominent, and so had led to the different names.

Bleeding was the remedy mostly in vogue, but Burns says (op. cit.) that "it seldom does good and is often hurtful," and that if used at all "it must be very early, and that it ought not to be pushed far." He tries to distinguish it from simple peritonitis, where bleeding, he alleges, is of use always.

The terrible epidemics that decimated the lying-in hospitals from time to time, led them to recommend that there should always be one or more spare wards provided, in order to prevent that particular vitiated state of air which originates from a room being occupied by a number of persons for a long continuance of time, even although every precaution with respect to the usual method of ventilation be adopted (Hamilton, op. cit.).

Convulsions.

These were regarded as being due to various conditions :

1. Morbid irritability of the os tincæ.
2. Over-distension of the uterine cavity.
3. Pressure on sentient parts sympathising with the brain

They had no knowledge of albuminuria. The treatment was by bleeding. Burns quotes La Motte, who bled a woman eighty-six times during the last five months of pregnancy, and he says modern practitioners have removed from forty to eighty ounces of blood with advantage in puerperal convulsions.

The jugular vein was opened when practicable.
After bleeding opiates were given.

Abortion.

This term included all miscarriages before the viability of the child. Threatened miscarriage was treated by putting the patient to bed, keeping her quiet and cool, and bleeding her from the arm. Bark and vitriolic acid or some preparation of myrrh and steel or other tonic medicine was given, and after all discharge had ceased she was told to dash cold water evening and morning on the lower part of the belly.

Extra-uterine Fœtation.

In the first edition of 'Burns's Midwifery,' published in 1809, this is his description of the treatment of extra-uterine pregnancy:

"In the treatment of extra-uterine pregnancy much must depend on the circumstances of the case. In the early stage, if the sac be lodged in the pelvis, we must procure stools, and have the bladder regularly emptied, as in cases of retroverted uterus. Attacks of pain during the enlargement of the tube require bloodletting, and anodynes, laxatives, and fomentations. The same remedies are indicated when convulsions take place. Ovarian requires the same management with tubal pregnancy, except that if it be complicated with dropsy, relief may be obtained by tapping. When expulsive efforts are made and the head is felt through the vagina, and the nature of the case distinctly ascertained, it may be supposed that much suffering may be avoided by making an incision through the vagina, and delivering the child; but as yet experience has not fully ascertained the utility of this practice. It has been proposed in these and other circumstances to perform the Cæsarean operation in the usual manner upon the accession of labour, but there is not only great danger from the

wound, but likewise from the management of the placenta, which if removed may cause hæmorrhage, especially in ventral pregnancy, and if left behind may produce bad effects. The last, however, is the safest practice.

The result of the numerous cases upon record will certainly justify to the fullest extent our trusting to the powers of nature, rather than to the knife of the surgeon. Allaying pain and irritation in the first instance, by bloodletting, anodynes, and fomentations, and avoiding during all the inflammatory stage stimulants and motion, whilst by suitable means we palliate any particular symptom, constitute the sum of our practice.

A tendency to suppuration is to be encouraged by poultices; and the tumour, when it points externally, is either to be opened or to be left to burst spontaneously, according to the sufferings of the patient and the exigencies of the case.

The passage of the bones and different parts of the fœtus may often be assisted; and the strength is to be supported under the hectic which accompanies the process. After the abscess closes great care is still necessary, for by fatigue or exertion it may be renewed, and prove fatal.

When no process is begun for removing the fœtus, but it is retained and indurated, our practice is confined to the palliation of such particular symptoms as occur."

A perusal of successive editions of Burns's 'Principles of Midwifery' up to the ninth, which was published in 1838, shows absolutely no change. It is repeated word for word as given above.

Before leaving the subject of midwifery of one hundred years ago, one or two curious statements are worthy of record.

Nisbet (op. cit), referring to the weak and irritable condition of the mind produced by pregnancy on women, says: "On this account so attentive are some nations to the state of pregnant women, that no person is allowed

even to knock loudly at the door, nor can the husband be arrested at this period."

Again, discussing the duration of gestation, he says women go nine complete months, or 270 to 273 days, but that the law has established such a latitude that every child born twelve months from the death or absence of the husband is considered as legitimate.

In dealing with breast troubles, he says, "At times, however, from the violence of the local symptoms on the breast, it is found necessary to unload it in order to procure a temporary relief; and this is done either by wet suction, by means of a child or a puppy, or else a grown person who has been in the habit of it."

Denman (p. 187), speaking of the cry of a newly born child, says: "This cry, which does not seem to be occasioned by pain, but surprise, is in its consequences extremely important, as it is the cause of an exertion of all the powers of the child."

One of the most striking facts in the obstetric literature of that time is the absence of all mention of cleanliness. Quite apart from any knowledge of bacteriology, or the principles of antisepsis, or of sterilisation (asepsis), one might have found some reference to cleanliness on the part of the doctor or nurse. But it is conspicuous by its absence, and one can only infer that it was not considered of the slightest importance; indeed, it was in all probability not considered at all. Each individual would act according to habit. Some would be neat, tidy, and clean in a domestic sense, whilst others would be the very opposite. Even when instruments were used no advice is given about washing them.

Diseases of Women.

As one might have expected, much less was written on this subject than on midwifery. Most books contained both subjects, and the amount devoted to midwifery was four or five times greater than that to diseases of women.

To take a few of the more important diseases:

Ovarian.

Burns, whose work was apparently the most popular, writes in 1809:

"The ovarium is subject to several diseases, of which the most frequent is that called dropsy. . . .

In the first stage of this disease we must attend to the effects produced by pressure. The bladder is to be emptied by the catheter, when this is necessary, and stools are to be procured. It may be considered how far, at this period, it is proper to tap the tumour from the vagina, and by injections or other means endeavour to promote a radical cure. When the woman is pregnant, and the tumour opposes delivery, there can be no doubt of the propriety of making a puncture, which is preferable to the use of the crotchet. But this has only been resorted to in order to obviate particular inconveniences, and affords no rule of conduct in other cases.

I am inclined to dissuade from any operation at this period when it can be avoided, because in a short time the tumour rises out of the pelvis, and then the patient may remain tolerably easy for many months or years. Besides, the ovarium in this disease contains, in general, many cysts, and, as these in the first stage are small, we can only hope to empty the largest. Perhaps we may not open even that, and, although it could be opened and healed, still, there are others coming forward which will soon require the same treatment. Puncturing them can only retard the growth of the tumour and keep it longer in the pelvis, where its presence is dangerous.

When the tumour has risen out of the pelvis, we must in our treatment be much regulated by the symptoms. The bowels should be kept open, but not loose. If at any time much pain be felt, we may apply leeches, and use fomentations, or put a blister over the part; and if there be continued irritation or hysterical affections, we must give opiates, and prevent costiveness. Upon the supposition of this disease being a dropsy, diuretics have

been prescribed, but not with much success, and often with detriment. . . . Having palliated symptoms until the distension becomes troublesome, we must then tap the tumour, which gives very great relief, and by being repeated according to circumstances, may contribute to prolong life for a length of time. . . . We should always tap the right ovarium on the right side, and *vice versâ*; by a contrary practice the uterus has been wounded. . . . Finally, it has been proposed to procure a radical cure by laying open the tumour, evacuating the matter, and preventing the wound from healing, by which a fistulous zone is produced; or by introducing a tent, or throwing in a stimulating injection.

Some of these methods have, it is true, been successful, but occasionally they have been fatal, and in no case which I have seen have they been attended with benefit. There are two powerful objections to all these practices, besides the risk of exciting fatal inflammation; the first is that the cyst is often irregular on its interior surface, and therefore cannot be expected to adhere; the second is that as the ovarium, when dropsical, seldom consists of one single cavity, so, although one cyst be destroyed, others will enlarge and renew the swelling; and, indeed, the swelling is seldom or never completely removed, nor the tumour emptied by one operation."

Cancer of the Uterus.

Burns gives a fair description of the clinical features, and then goes on to say:

"This is a very hopeless disease, but still, something may be done to check its progress or mitigate its symptoms. When uneasy sensations about cessation of the menses indicate a tendency to uterine disease, we find advantage from the insertion of an issue in the arm or leg, the use of laxative waters, and spare diet. When there is much sense of throbbing, heat, or pain about the pelvis, cupping glasses applied to the back are occasionally of

service. When the disease has evidently taken place, we must still avoid such causes as excite action in general; keep the parts clean by injecting decoction of camomile with hemlock or opium; allay pain by anodyne, and attend to the state of the bowels. Mercury, sarsaparilla, aconitum cicuta, etc., have been given internally, but have seldom a good effect. It has been proposed to produce, with an extracting instrument, a prolapsus uteri, and then cut off the protruded womb; but this operation is not likely to be resorted to."

Hamilton says:

"By a continued perseverance in a milk and vegetable diet, a total abstinence from animal food of all kinds, and every fermented liquor, and by occasional bloodletting, and in some cases the establishment of one or two issues in the arms or above the knees, together with frequent doses of cooling laxative salts, the progress of cancer of the womb may be retarded if the complaints be attended to at the beginning.

Cancerous complaints in their advanced stage produce such deplorable effects that it cannot be considered wonderful that women subjected to them should, with eagerness, have recourse to every impudent quack who pretends to have discovered a nostrum for their cure. The author of these pages, however, deems it his duty to caution women against spending that time in listening to the pretensions of empyricks which may be so advantageously employed at the beginning of such complaints in adopting suitable means to check their progress.

Were any medicine capable of removing cancer discovered, the fortunate discoverer certainly would not long conceal his success; and hence, such unequivocal evidence of the fact would soon be furnished as should put the matter beyond a doubt.

At present, however, quacks found their pretensions to merit on the successful event of single cases. Delusive pretensions! Were any single case of cancer cured by internal medicines, every cancerous complaint, wherever

situated, should yield to the same means. . . . Many shocking cases have occurred within the observation of the author of this work where women have neglected pursuing with steadiness the suggestions of regular practitioners in consequence of the false confidence they were induced to place in the dishonest promises of the discoverer of nostrums.

A simple recital of the agony of such women previous to death might appear incredible.

The interference of the Legislature in checking this species of robbery is certainly required, since, not only is money stolen, but also is life destroyed, and that in a way of torture too, which the severity of law has never yet exercised on the most flagitious criminals."

Fibroids.

These were called tubercles, and they were said to be sometimes thrown off with pains like those of labour.

The only treatment recommended was "antiphlogistic, in moderation." Burns says, "the bowels especially should be kept open and every source of irritation removed. Women may live a long time even although these tumours acquire considerable magnitude."

Fallopian Tubes.

These are the whole of Burns's remarks on affections of the tubes: "The tubes may be wanting or impervious, and are subject of many of the diseases of the ovaria."

Neither Denman nor Hamilton mentions them.

During the first twenty-five years of the century little or no progress was recorded. There were fresh editions of works brought out, but comparing them with the earlier editions, one finds in most cases the same views as to theory and practice enunciated in exactly the same words.

But in the next twenty-five years, from 1825 to 1850, there was a remarkable expansion in the knowledge of

diseases of women. This is shown by the fact that separate books were published devoted entirely to this subject.

In 1835, for instance, was published the "Outlines of the Principal Diseases of Females," by Fleetwood Churchill, of Dublin. This went through many editions.

In 1846 a much larger work called "A Practical Treatise on the Diseases Peculiar to Women," was written by Dr. Samuel Ashwell, who had been obstetric physician and lecturer to Guy's Hospital. This book went through several editions in a short time, and was reproduced in America, and used largely in that country.

In both these works one finds that excellent progress was being made by the improvements in method and by the increase in the number of workers.

From 1850 to 1875 the number of works on diseases of women multiplied in number and grew in bulk.

Midwifery also improved, and the books published on this subject alone became more numerous and much more luminous.

Comparing the books at different periods, namely in the first, second, and third quarters of the nineteenth century, one notes a gradual improvement in the nomenclature of diseases, a gradual abandonment of more or less fanciful theories, and a great progress in physiology and pathology, and at the same time, especially during the latter half of the third quarter, great strides were being made in treatment. But inasmuch as these have been so infinitely outstripped in the last twenty-five years of the century, one can speak first of the main epochs during the first seventy-five years.

Probably the most important contribution to midwifery was the introduction of chloroform as an anæsthetic by Sir James Simpson, in Edinburgh. Sulphuric ether had been used previously in some surgical operations, but Simpson experimented boldly upon himself with different anæsthetic gases, and the late Dr. Matthews Duncan, a former President of this Society, whom many of us well remember, was

one of the very first to take it. Its use in midwifery was strongly opposed by many eminent obstetricians of the time; but we now know how erroneous and mistaken their objections have proved to be, for chloroform rapidly took its place, not merely to mitigate the pains of labour, but also to facilitate operations of all kinds.

The introduction of the craniotomy forceps and the cephalotribe was a great improvement in the means of extraction after perforation.

The abandonment of venesection appears to have come about gradually, owing to more accurate knowledge.

The discovering that albuminuria was nearly always present in cases of eclampsia threw much light on that disease, about which, however, we have still much to learn.

Credé's method of delivering the placenta was a great improvement on traction of the cord.

When Semmelweiss showed that the high mortality from puerperal fever in women attended by medical students was due to the fact that they were allowed to attend post-mortem examinations and to go from them to parturient women, this was really the beginning of the gospel of cleanliness, and there is no doubt that had the profession been ripe for it it might have resulted in the evolution of asepsis. Nevertheless, it did make a vast improvement, and its introduction into practice and to the notice of English practitioners was due to Dr. C. Routh, one of the original Fellows of this Society. But the time was not ripe.

Even Semmelweiss did not know the reason why the cadaver was so dangerous.

The dawn of day in antisepsis and asepsis began with the purely scientific researches of Monsieur Pasteur, a man whose memory is revered not only in France, but in every part of the civilised world.

You all know how his work led Lord Lister to apply the knowledge so gained to the treatment of wounds.

You all know what this has led to during the last twenty-five years.

There is as much and probably more difference between the method originally advocated and practised by Lister and the method now employed, as there is between Stephenson's old "Rocket" steam engine and the most modern locomotive, and yet the one is the direct outcome of the other.

It is quite unnecessary for me to attempt to tell who have been the chief promoters in the grand evolution of surgical cleanliness or asepsis. The fact of the matter is, that Lister's idea "caught on," and spread like wildfire all over the world. The whole science of Bacteriology has sprung from it. Little additions to our knowledge, little improvements in technique, have been made by so many thousands, one may say that the total increase has been enormous.

Every modern operator one may say is now able to attain asepsis, although there are wide differences in the methods of attaining it. That is of little importance so long as it is attained.

During the course of the evolution of asepsis, those of us who have passed through it know how the microbe was pursued, hunted, caught, and killed, or got rid of from the surgeon's hands, the assistant's hands, the patients' skin, the instruments, the ligatures, the nurses' hands, the clothing, the sponges, the needles, and the room, and it was not until every possible source of infection was examined and eliminated that perfection was obtained. Many things which were considered essential have been abandoned. For example, the carbolic spray introduced by Lister has long been abandoned, even by Lister himself. The knowledge gained in this hunt of the microbe has already saved countless lives.

Take natural labour. It cannot be too strongly enforced that in more than 90 per cent. of all cases of labour everything will go on well if the woman is not interfered with, and nature is allowed to complete what after all is simply a physiological act. All that is required is surgical cleanliness on the part of both patient and attendant.

We know how puerperal fever was eliminated from the lying-in hospitals. At one time it was imagined that this was the result of routine syringing of the uterus with some antiseptic fluid. But this has been conclusively shown to be really unnecessary so long as no poison is introduced by the accoucheur or nurse. Not only is it unnecessary, but it has been shown to be attended with some slight risk, and it is therefore condemned by many authorities.

Whoever attends a woman in labour nowadays, whether doctor, midwife, nurse, or neighbour, ought to know all about the gospel of cleanliness. This Society, as you know, has done its best to spread this gospel, and so has helped to make puerperal fever a thing of the past.

Similarly surgical cleanliness enables us to perform obstetric operations with almost perfect safety to the mother; inflammations, such as pelvic peritonitis and cellulitis, peritonitis or puerperal fever, etc., most rarely resulting after forceps, version, or craniotomy. Indeed, symphysiotomy and Cæsarean section are done with ease and success, both mother and child being saved in the great majority of cases. Dr. Herman writes in the 'British Medical Journal' for December 29th, 1900: "There is now good ground for believing that in the near future a perfected method of Cæsarean section may relegate craniotomy, the induction of premature labour, and symphysiotomy alike to the past."

Rupture of the uterus, one of the gravest accidents in labour, is now often recovered from. This is due largely to the fact that the accoucheur has not introduced any pathogenic germs, and so if the parts are kept quite clean by packing with gauze, and the perils of shock and hæmorrhage avoided, the patient recovers. Not long ago our senior Hon. Secretary, Dr. Spencer, recorded a series of splendid recoveries, and no doubt many of you could testify to similar successes.

Operation, too, on extra-uterine fœtation cases of all

kinds, are now treated most successfully, even when ruptured and acute.

In diseases of women the progress has been so remarkable that it is almost like a fairy tale. One wonders what men like Osborn and Denman and Ould would say if they could be present at a modern operation. For an able *resumé* on the progress of gynæcology, I would refer you to Dr. Handfield-Jones's article in Allbutt and Playfair's 'System of Gynæcology,' published in 1896, and also to my immediate predecessor's inaugural address in 1899.

One of the greatest things, in my opinion, that asepsis has done for us, is that it has enabled us to proceed deliberately and without mischievous and often fatal hurry.

Sir Spencer Wells found that his mortality varied with the length of the abdominal incision. Hence, for a time, all operators endeavoured to work through as small an opening as possible. They were thus greatly hampered, for they were unable to see what they were about, and would work away separating adhesions with their fingers in the dark, doing great damage often to bowel or other structure, and setting up hæmorrhage the site of which they were afterwards unable to discover.

Now we know that with modern precautions the length of the incision makes practically no difference, and it is possible to open the abdomen by an incision as long as we like, in order to get as good a view as may be thought desirable for the operation before us.

All statistics of the past founded upon septic operative procedures have been rendered of practically little or no value. No one would dream now-a-days of condemning an operation on account of the mortality in the past. Hence the advice one gives to patients is entirely altered from what it was twenty-five years, or even much less than that, ago.

For example, it would have been outrageous twenty-five years ago to have recommended hysterectomy for cases of fibroid tumours of the uterus. But now a patient can be offered an almost certain cure when she is suffering greatly

from some of the distressing symptoms that occasionally accompany these growths.

Asepsis has enabled us to discover and successfully treat Fallopian tube diseases which were practically undiscovered not so very many years ago. Great credit is due to the late Mr. Lawson Tait for advancing our knowledge of Fallopian tube pathology and treatment.

I think it is necessary to utter a word of warning in regard to the danger of unnecessary operation, simply because it can be done aseptically and therefore without death to the patient. The mere fact that a patient recovers from an operation is not a justification for that operation. The mere fact that a patient's substantive complaint is cured is no justification for an operation. For example, if a perfectly healthy finger were removed by amputation it would not justify the operation because the patient lived after it. Again, a speck of steel in the cornea causing pain might be removed and the pain cured by removal of the eyeball, but it would not justify that operation.

Hence, whilst admitting that we may now with propriety advise operations which only a very few years ago would have been unjustifiable, yet I consider we ought to avoid operations wherever we can, and if an operation be required, we should select that which leaves the patient as little mutilated as possible. For, after all, to use a knife at all is, as it were, a confession of failure to cure the disease. Advances have been made in our knowledge and practice in many other things besides the evolution of asepsis with all its sequelæ. For instance, we now know that the transfusion of blood is not only no good but positively injurious, and yet we are enabled to save life in cases of severe hæmorrhage by the simple process of replacing the blood lost by an equal amount of fluid.

We have much to be grateful for on account of the position obstetricians hold to-day compared with that of the past.

The degraded state of those practising midwifery was considered so great by the College of Physicians that they

considered such practitioners unworthy of the Fellowship, and any member of the College of Surgeons was deemed ineligible to be on the list of the Council or Court of Examiners if he practised as an accoucheur.

In 1825 a meeting was held at the house of Dr. Granville, and was attended by the *élite* of the obstetrical practitioners of that time. A society was formed, over which Sir Charles Clarke presided. This society applied themselves, by means of memorials and letters to the corporate bodies, to the removal of all such indignities. By the help of the then Secretary of State for the Home Department this was accomplished. During the controversy Sir H. Halford wrote to Sir R. Peel, and stated that "midwifery was an unfit occupation for gentlemen of an academical education."

In spite of opposition the society succeeded in three years in obtaining the following points :

1. A recognition of the honourable position of obstetricians amongst the medical practitioners of the three corporate bodies.

2. An examination in midwifery by the Apothecaries' Company.

3. The admission of persons practising midwifery to be eligible for a post in the Council of the College of Surgeons.

4. That licentiates practising midwifery shall not be ineligible for the Fellowship of the College of Physicians.

It was not, however, until 1858 that the inaugural meeting of the Obstetrical Society of London was held. This was on December 16th, at the Freemasons' Tavern, Dr. Rigby in the chair. At that meeting Dr. Routh spoke, and he was one of the members of the first Council. We are glad to have him with us, still taking an interest in the subject to which he has devoted the best energies of his life.

Dr. Oldham, who was one of the first Vice-Presidents, is still living, as is also another original Vice-President, Dr. Robert Barnes. These three are the only ones left out of the first list of officers ; and there are only three

other original Fellows living, namely, James Duncan, Henry Walter Kiallmark, and David Lloyd Roberts.

The volumes of the 'Transactions' of the Society constitute a monument of the labours of this Society. They contain within their pages some of the most important contributions to the science and art of midwifery and diseases of women.

The system of appointing referees to read and report upon any papers sent in to the Society has worked well in permitting only those papers to be read and published that were really worthy of it.

The British Gynæcological Society, which began a separate career some few years ago, does not owe its existence to the exigencies of ordinary growth or on the lines of ordinary cleavage. I venture to express a hope that in the course of time that society will join us again, in order that the whole of the obstetric and gynæcological interest may be encompassed in one scientific body.

Just now I alluded to the attitude of the College of Physicians and Surgeons towards obstetricians. Although it is a long time ago I cannot help feeling that even at the present day we are looked upon a bit askance by both Colleges. But at the same time midwifery and diseases of women play such an important *rôle* in every practitioner's life that we have to be tolerated if not welcomed. A time may come when the development of our portion of medical art will become so great that we shall have to have a separate College of Obstetricians.

All of us who are here to-night will have joined the great majority when the first elected President of the twenty-first century delivers his inaugural address.

We imagine that we have attained a very high state of perfection in the practice of our branch of the profession compared with what it was 100 years ago.

Maybe in the year 2001 they will look upon us with the same feelings of pity for our ignorance as we look upon the practitioners of 1801. If so, all the better for

humanity. If we could be there we would rejoice with them, as I am sure Denman and Osborn and Burns and Hamilton and all the others would rejoice with us. At all events, I feel sure when they read in our books what we did they will at all events acknowledge that we were animated by a desire to find out and stick fast to the truth,—that we were shackled by no creed and no dogma, but that we welcomed any and every new idea when it was promulgated in a scientific spirit, and that all that can be said of us negatively and positively did not prevent them from attaining the high state of perfection to which we hope they will rise.

There is a grand work before the younger members of our Society. The problems that still require solution and which will undoubtedly be solved sooner or later are of the highest interest. There is one which has been worked at in vain by a vast number of men in the past, but which is as far from solution as ever. I allude to cancer: at the present time the only treatment that offers a hope of cure is the knife. True it is that by earlier and more complete removal, by removing fasciæ and glands, and by using antiseptics and by operating in an aseptic manner, the results of operation are much better than they were formerly. Still we often meet with cases that are too far advanced for operation, and too often, alas! cases recur after operation, and then we can only promote euthanasia.

I see no *à priori* argument against the discovery of a real remedy for cancer, and it has been and now is my lot to see so much of it that I sincerely hope before long somebody will find out the cause and the remedy.

And now, gentlemen, I have finished, and I beg to thank you for the patient manner with which you have listened to my Address, and to express a hope that during my term of office we may have a great accession of members to our list of Fellows, a much larger average attendance at our meetings, and that the papers read,

specimens shown, and the discussions may not only interest and instruct all of us who attend, but that they may be the means of advancing our scientific knowledge in order that we may be more and more able to relieve the pain and suffering of womankind.

APRIL 3rd, 1901.

Peter Horrocks, M.D., President, in the chair.

Present, 40 Fellows and 2 Visitors.

Books were presented by the Congrès Périodique International de Gynécologie et d'Obstétrique, Amsterdam, and by Dr. Chadwick.

William Sampson Handley, M.S., M.D.Lond., and James Hutchinson Swanton, M.D., M.Ch., were admitted Fellows of the Society.

The following gentlemen were proposed for election:—Frederick James Purcell Daly, M.R.C.S.Eng., L.R.C.P. Lond.; George Bagot Ferguson, M.D., B.Ch.Oxon.; Charles Hubert Thompson, M.D.Dubl., M.R.C.P.Lond.; Arthur John Wallace, M.D.Edin.

The following gentlemen were elected Fellows of the Society:—Joseph Cater, M.A., M.B., M.D.Brux.; Francis Hamilton Ellis, M.B., B.C.Cantab. (Woking); Henry Holman Weekes, M.D.Brux. (Old Brompton).

CASE OF DECIDUOMA MALIGNUM.

Exhibited by Peter Horrocks, M.D.

A Committee consisting of the President, Mr. G. Bellingham Smith, Mr. Bland-Sutton, Mr. Targett, Dr. Spencer, Mr. Alban Doran, Dr. Eden, and Dr. W. S. A. Griffith, was appointed to report upon the specimen.

A CYSTIC FIBRO-MYOMA OF THE UTERUS REMOVED BY POSTERIOR COLPOTOMY.

Shown by Dr. Herbert R. Spencer.

The specimen shown was a cystic fibro-myoma of the uterus, about as big as a duck's egg. It was converted into a single cyst, the wall of which was in great part membranous, and at most only a quarter of an inch in thickness. The inner wall of the cyst was irregular, and the contents were a pultaceous material, closely resembling that seen in dermoid tumours. A microscopic examination by Mr. Lawrence, the curator of the Museum of Anatomy at University College, showed the tumour to be a fibro-myoma, which, on its inner surface, showed signs of degeneration.

The patient from whom the tumour was removed was 36 years of age, had been married three and a half years, and had had two difficult labours and one miscarriage.

In the first labour (in June, 1898) the child had presented by the knee, and lived; in the second labour (in August, 1900) the funis presented, and the child was delivered dead with forceps. In both labours there was great difficulty owing to the presence of the tumour.

Menstruation had begun at 12—13, and had been regular in time, normal in amount, and without pain. On examination the abdomen was normal, the cervix rather low down, the uterus slightly retroverted; behind it was a cystic tumour in Douglas' pouch of the size of a duck's egg, not moveable. It was thought to be an adherent ovarian dermoid.

It was removed by Dr. Spencer at 10 a.m. on December 8th, 1900, by posterior colpotomy, being enucleated without difficulty from its adhesions, the general peritoneal cavity being also opened. As there was no Fallopian tube attached to the tumour, it was thought at the time to be

possibly a dermoid of the cellular tissue. There was a moderate amount of oozing from the cavity from which the tumour had been enucleated, and therefore a piece of iodoform gauze was inserted into Douglas' pouch, and appeared to control the bleeding. The opening in the posterior fornix was stitched up with silkworm gut, except where the gauze lay. The operation lasted twenty-seven minutes, and the condition of the patient was very good. About 3 p.m. the pulse was noticed to be rapid (120) and feeble. Dr Spencer was not informed until 9 p.m., when the pulse was 160, scarcely perceptible: and the patient was very anæmic, bathed in a cold sweat, and in a very alarming condition. There was tenderness and dulness above the pubes, but there was no definite physical sign of blood in the peritoneal cavity, although the patient was thin and very easy to examine; there had been a moderate loss of blood by the vagina. A diagnosis of internal hæmorrhage was made, as nothing else would account for the condition of the patient. Abdominal section was immediately performed under ether narcosis, and about three quarters of a pint of blood was found in the peritoneum: the blood was still trickling from two veins on a raw surface at the back of the body of the uterus, where the fibroid had been attached. The veins were tied with fine silk, a fresh piece of gauze was drawn through into the vagina, and several pints of normal salt solution were left in the abdomen; afterwards, five pints of normal salt solution were infused beneath the breasts. At the operation (which lasted fifteen minutes) another small subperitoneal fibroid was found at the fundus of the uterus, but was not interfered with. Both ovaries and tubes were normal.

The patient recovered well, and left the hospital on January 1st.

Dr. Spencer remarked on the difficulty which sometimes arises of making the differential diagnosis between internal hæmorrhage and shock. He suggested that where doubt existed, it might be advisable to make a small incision under a local anæsthetic down to the peritoneum,

when, if there were internal hæmorrhage, the blood would appear black through the peritoneum. The case illustrated the danger of colpotomy in cases in which adhesions existed. Although the recovery was smoother and the final result better after colpotomy than after cœliotomy, Dr. Spencer thought it should be limited to simple cases.

A further point of interest was the extensive cystic change in such a small fibroid. Although he had several times met with cysts in small fibroids, they had been multiple. In this case the cystic development was so extensive, that the tumour closely resembled a unilocular ovarian cyst. Possibly the bruising at the labours had something to do with this.

Dr. Amand Routh asked if it were not possible to draw down the retroverted uterus through the vaginal wound and expose the bleeding surface.

The President thought that the case was of value, not only on account of the great rarity of such an extreme cystic degeneration of a fibroid, but also on account of the very important practical question as to the relative merits of colpotomy and abdominal section. No doubt there were cases in which colpotomy was easy and safe, and then it was probably the better plan. But it was often impossible to be quite sure that the operation would be easy and safe, and when there was much tension put upon the parts they were apt to tear and give rise to bleeding, which it was difficult, if not impossible, to stop, because the vessels were usually quite out of sight and so could not be caught, and packing with gauze, with a view to apply pressure, was a most unsatisfactory measure. On the whole he was inclined to think there were but few cases in which abdominal section was not the safer and, on the whole, better plan. He did not think in Dr. Spencer's case he would have been able to draw the uterus down sufficiently to get at the bleeding vessels.

Dr. Herman agreed with what the President had said as to the risks of posterior colpotomy. He would also point out that it was more difficult to identify parts when this method of reaching them was adopted. When the abdomen had been opened the fundus uteri was easily found, and other structures in the pelvis could be recognised by their relation to the uterus. But when diseased parts were to be removed by colpotomy, the fundus uteri was almost out of reach, and therefore this aid to their identification was absent.

Dr. Briggs (Liverpool) said he thought that he could refer from memory to thirty-seven cases of pelvic disease treated by colpotomy. From his experience of the operation, better results, in suitable cases, were obtainable by it than by cœliotomy. In the selection of the vaginal route the accessibility of the site of the primary disease was essential, and was readily estimated before operation. An easy operation and a small risk attended the treatment of centrally-placed tumours, free from lateral pelvic fixation. When lateral rigidity, due to firm exudates, extended to the pelvic wall, the risks of colpotomy were, in his opinion, increased by the consequent difficulties in manipulation, and the probable shortening and thickening of the pedicle. He could claim some experience of colpotomy, and the only complication he had seen was hæmorrhage—unfortunately fatal—thirty hours after operation. In his absence the bleeding was not discovered. The course of events justified the conclusion that, amidst rigid pelvic adhesions, a short pedicle was tied, under tension, perhaps imperfectly, or that the thick pedicle had shrunk within the ligatures, which, after death, were found only appreciably loosened behind the clubbed free-end of the stump. The patency of the ovarian artery with the ligatures still *in situ* was tested by a stream through a cannula placed in the uterine artery; the ovarian artery was permeable to water under high pressure, but impermeable to glycerine or starch solution under high pressure. Such a risk as this, if apparent, could be abolished by suturing the free surface of the stump. In Dr. Briggs' opinion Dr. Herbert Spencer's method of treatment of the hæmorrhage was the only one practicable in his case, where again the danger of unyielding fixation of the uterus was realised in connection with colpotomy.

Dr. W. F. Victor Bonney remembered a case in which removal of a small myoma by posterior colpotomy was followed by troublesome oozing for many hours. Abdominal section, without doubt, gave less cause for anxiety during the first few hours following the operation.

Dr. Spencer, in reply, said it would have been impossible to retrovert the uterus through the colpotomy wound owing to the extensive adhesions which existed. The fatal case mentioned by Dr. Briggs confirmed him in his opinion that the range of colpotomy was a very limited one. In reply to Dr. Griffith he thought gauze was very useful in checking bleeding from oozing surfaces; in Dr. Griffith's case, where the pedicle of an ovarian tumour had been torn across during labour, he thought it would have been better practice to open the abdomen and secure the pedicle—an opinion which he understood Dr. Griffith to share.

MICROSCOPICAL SECTIONS OF THE KIDNEYS FROM A FATAL CASE OF PUERPERAL ECLAMPSIA (WITH FULL NOTES OF P.M.).

Shown by Dr. H. R. Andrews.

Dr. Andrews said that he was indebted to Dr. Herman for permission to report the case.

R. D—, aged 22. Primigravida; twin pregnancy, nine months; swelling of legs for last two months; vomiting and headache on March 5th, 1901, on which day she was admitted to the London Hospital; three fits before admission; had never had any fits before.

Patient was unconscious on admission, and never regained consciousness. The face was cyanosed; legs and vulva œdematous; pulse 140; tension increased; fundi normal; temperature 98·5°.

No shortening of cervix. Urine, drawn off by catheter, was dark in colour, acid, sp. gr. 1020, contained granular and hyaline casts, and ½ albumen on boiling.

The greatest circumference of abdomen was 39¼ inches after rupture of membranes. Twins felt in utero. No fœtal heart heard.

Treatment.—Injection of morphia and atropine; infusion of saline solution, 3 pints. Later, injection of strychnine and caffein.

Patient had 11 fits after admission.

Patient died thirty hours after admission, with signs of œdema of both lungs. Temperature, 102·6°, had been steadily rising since admission. Labour had advanced to end of first stage.

Post-mortem report:

Rigor mortis present.

Marked œdema of legs.

Pleuræ.—No excess of fluid; no adhesions.

Lungs.—Right: Feels solid; contains some air. In condition of extreme congestive œdema.

Left: Feels solid; extreme congestive œdema. Base, practically airless, sinks in water. Dirty, almost purulent fluid squeezed out.

Pericardium.—Slight excess of fluid; no adhesions.

Heart, 12 ozs.; moderately firmly contracted; right side contains a good deal of firm white clot; left side almost empty; ventricular walls thick; right ventricle somewhat hypertrophied.

Valves, normal; tricuspid admits tips of four fingers; mitral admits tips of three fingers.

Spleen, 8 ozs.; normal.

Kidneys.—Together, weighed 15 ozs.

Right: Large; stellate veins marked; surface mottled, yellow, and red; capsule slightly adherent; cortex slightly increased in thickness; medulla to cortex as 3 to 2; cortex has a cloudy appearance; boundary zone somewhat congested; pyramids white; pelvis and ureter dilated; no ulceration seen in pelvis; lining membrane slightly thickened, quite smooth.

Left: External appearances similar; medulla to cortex as 3 to 2; cortex yellow, mottled with red; cloudy appearance more marked; pyramids white; pelvis similarly dilated.

Genito-urinary tract.—Ureters both dilated; no mechanical obstruction detected. Bladder dilated, and slightly hypertrophied; trabecular structure visible. No ulceration. No obstruction to urethra.

Liver, 3 lbs. 12 ozs.; yellowish brown; looks greasy; no marked softening; yellow areas at periphery of lobules; no excess of fibrous tissue; no hæmorrhages seen.

Brain, 2 lbs. 12 ozs.; no flattening of convolutions; no apparent œdema; no excess of fluid in ventricles; puncta cruenta on section are rather more marked than usual; no naked-eye pathological changes in cerebrum or cerebellum.

Uterus contains female fœtus, 4 lbs. 8½ozs., and male 6 lbs. 12 ozs., first vertex and third breech respectively; two separate placentæ; os fully dilated.

Microscopical appearances.—The glomeruli show very

little, if any, change; and there is no exudation into the capsules.

There is no interstitial exudation.

The most marked change is seen in the epithelium of the convoluted tubes, where there is what seems to be a running together of the cells. The affected cells show no definite structure, and in many of the tubes not more than half the normal number of nuclei is seen. There is no desquamation. There is a marked degree of granular degeneration. There is no proliferation, such as is usually seen in acute nephritis. The convoluted tubes are dilated. Similar changes are seen in some of the collecting tubes, and tubes of the loop of Henle; but these are not so universally affected as are the convoluted tubes.

Many of the tubes contain hyaline casts.

There is no marked congestion.

These appearances correspond closely with those noted by the late Dr. Turner, Dr. Fenton, and others quoted by Dr. Herman in his article on "Puerperal Eclampsia" in 'Allbutt's System of Medicine,' vol. vii, p. 797.

Microscopically, the liver only showed swelling of the cells; no hæmorrhages, and no necrosis.

Dr. Andrews said that he was showing microscopical sections of the kidneys, with three sections of acute nephritis in non-pregnant women for comparison. He wished to draw attention to the dilatation of the ureters and pelves, for which nothing except the great size of the uterus was found to account.

In replying to the President and Drs. Blacker and Spencer, Dr. Andrews said that he had not read a full account of the post-mortem examination, as he had not wished to take up the time of the meeting, and had not discussed the treatment, as a paper was about to be read on the subject of the treatment of puerperal eclampsia.

The President asked if there were any retinal hæmorrhages and if the temperature was raised. His own experience was that the prognosis was very grave where there was high temperature or retinal hæmorrhages or a great diminution in the amount of urea excreted (as had been pointed out by Dr. Herman), or where the patient had rapidly recurring fits so that the coma became very profound. He asked what treatment had been adopted.

THE PATHOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA, WITH SPECIAL REFERENCE TO THE USE OF SALINE TRANSFUSION (WITH NOTES OF TWO CASES).

By Ernest W. Hey Groves, M.D., B.Sc., &c.

(Received December 27th, 1900.)

(*Abstract.*)

Case 1.—Primipara, aged 23. Easy labour in the absence of medical attendance. Eclamptic convulsions and coma immediately after, which increased in severity for twelve hours in spite of morphia and pilocarpine. Endovenous injection of 100 oz. of hot normal saline, followed by rapid improvement. Coma and convulsions lessened at once. Fits ceased within three and a half hours. Coma passed off, and diuresis occurred in thirteen hours.

Case 2.—Secundipara, aged 21. Convulsions. Coma with anuria ushered in labour at full term. Fits were of extreme violence, and numbered about twenty-six between 2 a.m. and 4 p.m., when 70 ounces of hot normal saline were injected into the vein. Child was born at 5.30, and died almost at once. Frequency and violence of the fits lessened after transfusion, and ceased within fourteen hours, while coma passed off, and diuresis was established within forty-eight hours. The return to consciousness was followed by two days of violent transitory mania, and a week after delivery a relapse of the anuria and delirium was threatened as the result of a large meat meal.

Collected cases of saline transfusion for eclampsia.—Forty-seven cases, including the above, are tabulated, showing a mortality of only 12·7 per cent. These are chiefly those of Porak and Bernheim (13), and Jardine (22).

Pathology and morbid anatomy of eclampsia.—Evidence of toxic nature of puerperal eclampsia; (1) experimental, and (2) from morbid anatomy. The great prominence of tissue necrosis, associated with capillary thrombosis and hæmorrhagic infarctions in the brain, kidneys, and liver, points to the essential lesion of the disease. The greatly increased coagulability of the blood observed, both ante and post mortem, is closely related to this lesion.

The nature of the toxine is uncertain, but it is probably related to the purine bases.

The origin of the toxin is probably threefold: (1) from the placenta; (2) from the fœtus; and (3) from the alimentary canal. The pre-eclamptic stage is caused by the presence of these toxines in the blood; the actual convulsions and coma result when these toxins cause the coagulation of the blood, and the multiple capillary thrombi.

The therapeutic action of the saline solution is probably due to its hindering the formation of thrombi, and dissolving those just formed. That it does not act primarily as a diuretic is proved by the fact that diuresis occurs long after the convulsions have ceased. The fact that cases are recorded in which gelatine injections have caused symptoms of anuria and uræmia with multiple thrombosis indicates the possibility of these conditions arising from a morbid coagulability of the blood.

The pathology of Puerperal Eclampsia has always been a matter of great obscurity, and the treatment of Eclampsia one of considerable controversy. It is a disease which presents no constant gross *post-mortem* lesions, and therefore its elucidation depends upon minute histological and chemical research, which have only been meagrely bestowed upon it, and that only in recent years. Further, it presents so close an imitation of another and distinct disease—*i. e.* uræmia, that many of the pathological theories of the latter have been adopted for it without sufficient evidence of their applicability to eclampsia; in fact, it can hardly be said to have had a pathology apart from uræmia. The views of treatment, too, are conflicting and

contradictory, the number of remedies put forward being, as in other cases, a sure index of the difficulty in curing the disease. Everything—from the empirical bloodletting of fifty years ago, down to the Porro's abdominal extirpation of the pregnant uterus—has been tried, and still 20 per cent. to 30 per cent. of the mothers and 50 per cent. of the children die of the disease.

Within the last decade, however, a good deal of scattered work has been done on the pathology of eclampsia, and a new mode of treatment introduced which has given good results, and promises better still in the future. I refer to the endovenous or subcutaneous injections of saline solutions.

Before reviewing the recorded cases of this treatment, I will venture to bring before you two cases, which have occurred in my own practice, in which I adopted this method, and which led to my making the present communication.

Case 1.—G. P— was seen in consultation with Dr. Perrott.

G. P—, primipara, aged 23; no previous illness, but for the past six weeks she had had some swelling of the legs and face.

April 28th, 1900.—Gave birth to a daughter at full term. No one but a friend was present at the birth, which occurred at 5 a.m., with little or no pain. Upon the expulsion of the placenta she gave a loud cry, and became convulsed, and then lapsed into profound coma.

She was treated by hypodermic injections of morphia (gr. $\frac{1}{3}$) and pilocarpine (gr. $\frac{1}{3}$) every four hours, with croton oil applied to the tongue. The fits continued, however, at intervals of about an hour, and when I saw her at 11 a.m. with Dr. Perrott, her condition was as follows:—Face was cyanosed and puffy; patient was deeply comatose, breathing was stertorous and irregular; mouth and nose were covered with fine froth: pulse 120, of moderate tension, and irregular; considerable œdema of legs. A catheter

passed since the confinement failed to draw off any urine. Uterus was firmly contracted, and there had been no hæmorrhage.

The diaphoretic treatment was beginning to act, and therefore we decided to continue it without change for another six hours before trying any further method. At 5 p.m. her condition was decidedly worse. She had had ten fits in all, the last two following one another within a quarter of an hour. These two we witnessed. They were epileptiform, with a predominance of the tonic over the clonic spasms, and lasted about one minute, each being followed by deep cyanosis and very irregular breathing. The coma was as deep as could be. We both considered the condition to be worse than in the morning in spite of the treatment, and so decided to transfuse. One hundred ounces of normal saline at 100° F. were allowed to flow under low pressure into the right median basilic vein. This occupied forty minutes, partly because a fine cannula and low pressure were employed, and partly because the blood clotted with such extreme rapidity in the cannula when introduced into the vein first, that the cannula had to be removed and re-inserted lest a clot should have been introduced into the circulation. After about 40 ozs. had flowed in, a most noticeable change appeared in the patient's face—the deep cyanosis of the cheeks and lips gave place to a healthy colour, and the stertorous, jerky breathing became quiet and regular. The coma, too, was greatly lessened, so that although the preliminary skin incision caused no reflex movement, the final stitches provoked a most lively response, which necessitated the patient's being held. The pulse was 98, soft and regular. A catheter again failed to draw off more than a few drops of urine.

Two slight convulsions occurred between 8 and 9 p.m., and these were the last. At 10 p.m. three ounces of highly albuminous urine were drawn off. Consciousness returned at 6 a.m., April 29th—that is, twenty-five hours after the delivery. The patient complained of severe headache, but

knew nothing of her confinement. She passed about one pint of cloudy urine, which was loaded with albumen.

The subsequent progress was uninterrupted; she passed about two quarts of urine each twenty-four hours. The albumen rapidly diminished, and had disappeared on May 6th—*i. e.* eight days after the onset of the eclampsia and anuria.

I would briefly draw attention to certain points in this case, which I shall have occasion to refer to again.

She had had a distinct premonitory symptom in the œdema. She was probably semi-comatose during labour, otherwise she would have sent for medical aid, which had been arranged for beforehand. In spite of the satisfactory diaphoresis produced by the pilocarpine the general condition was not improved. There was remarkable absence of post-partum hæmorrhage, there being hardly a stain of blood on the bedclothes, although no skilled aid was forthcoming until an hour after the confinement. With this absence of hæmorrhage I would associate the greatly increased tendency of the blood to clot.

The effect of the transfusion was immediate, as indicated by the lessened cyanosis and coma; in fact, the operative action of the salt solution was just as marked and as little open to doubt as in a case of hæmorrhage. And in this case labour was over and no chloroform was used; so there were no other reasons to account for the marked change for the better, which accompanied transfusion.

The frequency and violence of the fits lessened immediately, so that three hours elapsed without a single convulsion, and then there were merely two slight fits and no more.

There was no marked rise in urinary secretion until twenty-four hours after the transfusion, and twenty hours after the convulsions had ceased, coinciding with the time that the coma passed off.

Case 2.—R. L—, aged 21, had one miscarriage about twelve months ago. No other pregnancies.

Puerperium normal, but latterly the patient had constant headache, and was very pale.

June 6th, at 2 a.m. (that is, at full term), she awoke and vomited several times; at 6 she had a convulsion, which her husband regarded as hysteria. She continued to have these fits until 11 a.m., when I saw her in one. It was a typical eclamptic convulsion, accompanied by unconsciousness. There was some œdema of the feet and legs. Her tongue was quite bitten through at the side. The uterus was feebly contracting, and the os dilated to the size of a shilling.

I went home for the necessary apparatus and to get a nurse, and returned at 2 p.m. Her condition was then worse. She had in the interval gone from one fit into another, so that the separate fits could not be distinguished. Her condition was as follows:—She was deeply cyanosed, with swollen lips, from which issued blood-stained froth; the breathing was irregular and stertorous; coma was absolute; pulse 120, medium tension, and regular; respiration 32; pupils moderately dilated and fixed; fœtus was in the first position of an occipital presentation; the heart could be faintly heard; the os was about the size of a crown. A catheter drew off ʒix of thick red urine (sp. gr. 1048, solid with albumen). A Champetier's bag was introduced at 2.10 p.m., and five strong convulsions succeeded one another within half an hour. Chloroform was therefore given, and at 3.40 I injected 70 ozs. of normal saline into the right median basilic vein. This occupied three quarters of an hour, and some difficulty was caused by the great readiness with which clotting took place round and in the cannula before the stream began to flow. At the termination of transfusion the pulse was 160, soft; respiration 36; colour improved by a lessening of the cyanosis; breathing no longer stertorous. One slight fit occurred during transfusion.

Child born at 5.30 naturally, one slight fit occurring when the head was on the perineum. Child was a small female, which died after a few gasps. Bleeding was very

slight. At 8.30 seventeen drachms of urine were drawn off (sp. gr. 1030, 11—12 albumen). The convulsions continued with diminished frequency until 9 a.m. the next morning, when the last occurred.

June 7th.—Urine, ℥vij drawn off at 12 noon, and ℥xj at 10 p.m.

June 8th.—Coma continued. No more fits. One pint of hot water with 1 oz. of brandy injected per rectum at 10 p.m. and 8 a.m. Bowels open. No food by the mouth. The coma passed off in the afternoon after lasting fifty-three hours.

June 9th.—She took milk and water in small quantities. She was quite unconscious of her surroundings and of the past events, and exhibited all the symptoms of transitory mania. She talked incessantly, and was violently abusive and obscene in her language. She was very restless and violent, requiring two persons to restrain her from getting out of bed. Temperature 100°, pulse 84.

June 10th.—Was much quieter after some hours of natural sleep. Passed urine in large quantity—about four pints in the twenty-four hours (sp. gr. 1016, with 1-12 albumen).

June 15th.—Patient had progressed well since date of last note, and the nurse had left her. She had been persuaded by her anxious friends and relatives to partake of a meat dinner, of which she ate heartily. At 4 p.m. she complained of a pain in the loins and headache, and began to wander in her mind. Through the night she was restless and delirious. She only passed ℥jss urine, and that with difficulty. It was sp. gr. 1024, and deposited half albumen on boiling.

June 16th.—She was given large quantities of milk and soda and imperial drink, and in the afternoon passed two and a half pints of urine. Further progress was uneventful.

In order to show more clearly the relation of the number of fits and the excretion of urine to the transfusion, I have added a table showing the number of fits and the amount

of urine during six hourly periods before and after transfusion.

Table showing number of fits and quantity and quality of urine during six hourly periods before and after transfusion.

Date.	Time.	Number of fits.	Coma.	Amount of urine.	Sp. gr.	Albumen.
June 6th	Before 10 a.m.	6 (?)		0	—	—
	10 a.m.—4 p.m.	20 (?)		℥j	1048	Solid
	At 4 p.m.—Saline transfusion.					
	4 p.m.—10 p.m.	7		℥ij	1030	$\frac{1}{12}$
June 6th—7th	10 p.m.—4 a.m.	3		℥iijss	1024	$\frac{3}{4}$
	4 a.m.—10 a.m.	4		℥iijss	1024	$\frac{3}{4}$
	10 a.m.—4 p.m.	0		℥vj	1030	$\frac{3}{4}$
	4 p.m.—10 p.m.	0		℥vj	1030	$\frac{3}{4}$
June 7th—8th	10 p.m.—4 a.m.	0		℥viij	1024	$\frac{1}{4}$
	4 a.m.—10 a.m.	0		℥viij	1024	$\frac{1}{4}$
	10 a.m.—4 p.m.	0		℥xiij	1018	$\frac{1}{8}$
	4 p.m.—10 p.m.	0		℥xiij	1018	$\frac{1}{8}$
June 9th	Omitted because urine was lost with fæces.					
June 10th	Per 6 hours	0		℥xx	1016	$\frac{1}{12}$

This case has certain features in common with the first, to which I will refer before taking up new points.

She showed premonitory symptoms in the anæmia and constant headache. There was again a notable absence of hæmorrhage; and the blood showed a very remarkable disposition to clot rapidly.

The frequency of the convulsions diminished after trans-

fusion, so that whilst there had occurred upwards of twenty in the six hours preceding the operation, there were only seven in an equal period following it. But here we have the important factors of an hour's administration of chloroform and of delivery which both, no doubt, aided in lessening the fits.

Again, it is well seen that nothing like diuresis occurred until forty-eight hours after transfusion and thirty hours after the fits had ceased, at about the time when consciousness returned; and, moreover, the rise in the amount of urine is a comparatively gradual and not a sudden one, the amount drawn off during successive periods of six hours each, beginning at the commencement of the attack, being in ounces: 0, 1, $3\frac{1}{2}$, 6, 6, 8, 8, and 13; and then two days later 20.

In this case it is very interesting to note how a relapse of the disease was threatened as the result, apparently, of a big meat meal.

The condition of violent mania into which the patient emerged soon after consciousness returned, is often seen in bad cases of puerperal eclampsia, but unfortunately the mania is generally more lasting than in my case.

Having presented these two cases of my own, I now turn to the other cases which I have collected from the literature.

The first mention of the treatment of eclampsia by the injection of saline solutions which I can find is in the report of the International Congress for Gynæcology and Obstetrics at Geneva in 1896. Porak, and his pupil Bernheim, working in the hospital of St. Louis at Paris, report thirteen cases occurring in 1893 and 1894, only one of which died. It is not distinctly stated that the method originated with Porak, but I gather this from the way in which Professor Charpentier speaks of it. They injected solutions of sodium chloride (7 grammes to the litre) into the buttock, in quantities of about half a litre at a time,

generally repeating the injections once or twice after six hourly intervals.

In his criticism of the method, Professor Charpentier states that, without going so far as to regard the injections as a certain cure, the method is one of great value. It dilutes the toxicity, it re-establishes or increases urinary secretion, and it favours the elimination of toxins.

Including, then, these thirteen, I have been able to find records since 1893 of forty-five cases, which, with my own two, make a total of forty-seven.

			Recovered.	Died.
1893-4*	Porak and Bernheim . .	13	12	1
1896†	Proben	1	1	0
1898‡	Davis	2	2	0
1898§	Neale	3	3	0
1898‖	Poncet and Vinay . . .	1	1	0
1899¶	Allen	3	3	0
1899**	Jardine	22	17	5
1900	Author	2	2	0
	Total . . .	47	41	6

Mortality = 12·7 per cent.

Of the six reported fatal cases, one—that of Porak—was moribund when treatment was undertaken. One of Jardine's cases, clearly from his own statement, died from morphia-poisoning, and another from the perforation of a duodenal ulcer ten days after labour. So that as far as these cases go, 12 per cent. probably overstates the mortality.

Now, as I stated in opening, the maternal mortality has never been below 20—30 per cent. in any series of cases treated by all or any of the other methods in vogue. Charpentier collected the results of 204 recent cases, treated by

* 'Congrès Internat. de Gyn. et d'Obst.,' Genève, 1896.
† 'Med. Rec.,' June 13th, 1896, p. 871.
‡ 'Amer. Journ. of Obst.,' vol xxxvii.
§ Ibid.
‖ 'Sem. Méd.,' June 1st, 1898.
¶ 'Amer. Journ. of Obst.,' vol. xxxix.
** 'Brit. Med. Journ.,' May 26th, 1900.

different men and methods, in the four great Paris maternities, and puts the mortality as varying from 59 to 29·12 per cent. ('Report of Geneva Congrès Périodique International de Gynécologie et d'Obstétrique,' September, 1896.) Further, Mangiagalli,* Grassow,† and Doran,‡ without publishing cases, speak very highly of the method. All who have tried the treatment speak enthusiastically about it, and I cannot find any who were dissatisfied with the results it gave. In this respect, at any rate, it stands out in distinction from all other methods of treatment of eclampsia, each one of which has as many opponents as adherents.

Nearly one half the recorded cases are those of Dr. Jardine, of Glasgow, who has tabulated his results in a recent number of the 'British Medical Journal.' It has been said in the same periodical that his statements are not very convincing, because his cases included many of only moderate severity, and his mortality was 22 per cent. But apart from the fallacies mentioned above, of the case of duodenal ulcer and that of morphia-poisoning, there is another important fact which throws a much more favourable light on Jardine's series. I refer to the large preponderance of cases (12 out of 22) in which eclampsia occurs before full term, labour being induced prematurely. Now these cases are far more fatal than those in which eclampsia occurs after labour has begun at full term, or those in which it only begins after labour is at an end.

Schauta§ gives the following statistics on this point:

Of 309 cases of eclampsia,

In 42, convulsions began before labour, and 52·5 per cent. died.

In 185, convulsions began during labour, and 40·2 per cent. died.

In 82, convulsions began after labour, and 27·2 per cent. died.

* Loc. cit.

† 'Centralbl. für Gyn.,' 13, 1893.

‡ 'Trans. Obst. Soc. London.' 1899.

§ 'Archiv für Gyn.,' vol. xviii, pp. 263, etc.

If Jardine's cases had died in this proportion, he would have lost more than twice as many as he did.

We may, then, I think, take it as proved that this method of treatment gives very good results. The number of observations and of observers are, however, too few as yet to go further than this, and I will now turn to a more general view of the pathology and treatment of the disease in order to ascertain, if possible, the therapeutic action of the treatment, and so to judge the method from a theoretical as well as from a practical standpoint.

Pathology of eclampsia.—All modern observers are agreed that puerperal eclampsia is due to the action of some toxic substance circulating in the maternal blood. This doctrine is based upon experiment and upon morbid anatomy. That the blood of eclamptic women contains toxins was first proved by Doléris* in 1886, who showed that serum from cases of eclampsia injected into rabbits produced convulsions, coma, and death. Feltz† and Ritter had already, in 1881, shown that the injection of urine into the rabbit's circulation produced uræmic fits. Bouchard,‡ in 1890, measured the toxicity of the normal urine, and indicated the limits of its variation in health; and Laulanie‡ and Chambrelent then showed that in normal pregnancy this toxicity was much reduced.

In 1892 Tarnier§ and Chambrelent, followed in 1895 by Ludwig and Savor,‖ brought forward a series of experiments which are generally accepted as proving the toxic theory of eclampsia. They injected graduated doses of serum and urine taken from healthy women and also from eclamptic patients into rabbits. They found that normal serum has a toxicity for rabbits of about 10 c.c. per kilogram of body-weight, but that eclamptic serum has a

* 'Société de Biologie Compt. rend.,' 1886.

† Quoted by Stewart, 'Amer. Journ. Obst.,' vol. xxxix.

‡ 'Annales de Gyn. et d'Obst.,' Nov., 1892, and 'Société de Biologie Compt. rend.,' 1892.

§ Ibid.

‖ 'Monatssch. für Geburts u. Gyn.,' Bd. i, 1895.

toxicity of 5·4 c.c. per kilogram—*i. e.* nearly double. The urine, on the contrary, was much reduced in toxicity; in fact, it was hardly toxic at all. Finally, after eclampsia is over, the toxicity of the urine is greatly increased, indicating the elimination of the toxins, which had been retained in the blood. And Van de Velde* has lately shown that urine injected into gravid and into non-gravid rabbits produces convulsions more readily in the former than in the latter.

The chief naked-eye *post-mortem* appearances of eclampsia concern the brain and the kidneys. In the former there are various circulatory disturbances, such as anæmia, œdema, or hæmorrhage; and in the latter, conditions bearing an outward resemblance to Bright's disease. In ninety post-mortems Schauta† found these lesions distributed as follows:

Lesions of Brain.		*Lesions of Kidney.*	
Anæmia and œdema	47	Chronic Bright's (amyloid 2)	28
Hyperæmia	3	Acute Bright's	16
Apoplexy	10	Chronic and acute	2
Hydrocephalus	3	Compression of ureters and hydronephrosis	6
		Anæmia	6

The most general appearance of the brain is one of œdema, combined with large or small hæmorrhages. The convolutions are flattened, the cerebral substance is soft and œdematous, the subarachnoid fluid is increased, as is also the intra-ventricular fluid occasionally. The most usual type of hæmorrhage consists of punctiform hæmorrhages into the cortex and basal ganglia. There also occur small scattered subarachnoid extravasations, miliary hæmorrhages into the white substance, pontine hæmorrhage, and occasionally the large hæmorrhages of ordinary cerebral apoplexy.

* Quoted in epitome, 'Brit. Med. Journ.,' Feb. 13th, 1897.

† 'Archiv für Gyn.,' vol. xviii, pp. 263, etc.

In the only detailed histological account of the brain which I can find, Auglade* and Poux unfortunately confine themselves to the examination and description of the cortical cerebral cells. The pyramidal cells are distorted, and the chromatin granules disappear; they are surrounded by a number of small, round, deeply-coloured cellular elements. And besides these there were larger oval or round granular cells which stained faintly, and which are regarded as leucocytes or "protoplasmic glia cells."

In considering the kidneys, it is important to exclude, as far as possible, cases of old-standing Bright's disease to which eclampsia has been added, so that the peculiar lesions of the latter may be distinguished from those of the former. It may be at once stated that to the naked eye no distinction exists. The kidneys are generally enlarged and congested, looking like those of parenchymatous nephritis. But microscopically they present, not inflammation but necrosis and degeneration. This change is most marked in the cortex, where a large number of tubules are involved. The epithelial cells have their outline obscured; and their contents, which show marked fatty or colloid degeneration, run into one another. The lumen of the tubules is blocked with the *débris* which results from this cell destruction. The connective tissue round the affected tubules is crowded with leucocytes, and the capillaries are filled with blood-cells and platelets, and also with a peculiar hyaline thrombus, described by Prof. Welch.† In 'Allbutt's System,' Dr. Herman‡ quotes eight different authorities, all of whom concur accurately in the above description, and also relate the appearances to those found in acute toxic conditions. Saft§ states that the eclamptic kidney is quite different from that of nephritis, as the former is a degenerative, and the latter

* 'Archiv de Neurol.,' June, 1899.

† Clifford 'Allbutt's System,' Art. "Thrombosis," vol. vi.

‡ Ibid., vol. vii.

§ Saft, 'Archiv für Gyn.,' vol. li, p. 207.

an inflammatory, lesion. Bouffe de St. Blaise is quoted by Herman as summing up the matter as follows:—"The characters closely approach the different coagulation necroses found in infectious diseases. The lesions fall principally on the epithelial cells and the vessels immediately in contact with them." Professor Welch, in the same 'System,' writing on the subject of hyaline thrombosis, states that "the capillaries are filled with a refractive, homogeneous, translucent, colourless or faintly yellow material, which stains well with Weigert's fibrin dye. This condition occurs especially in infective and toxic diseases, where they may be present in the liver, the lungs, and, above all, the kidneys. The most striking examples of this form of thrombosis with which I am acquainted are encountered in the renal capillaries, chiefly of the glomeruli of swine dead of hog-cholera. In extreme cases there is complete anuria. I have repeatedly found them in various experimental infections and in human infections. They occur in eclampsia. Bacteria are not necessarily present, so that toxins are probably the underlying causative factor, and for this there is experimental evidence."

In addition to changes found in the brain and kidneys, there are most important and characteristic lesions in the liver. These are mostly of minute or microscopical size, and hence they escaped the notice of the earlier observers. Pilliet* has the credit of their discovery in 1889, and since that time Klebs,† Lubarsch,† Favre,‡ Zweifel,§ Pontz,† Schmorl,‖ Vinay, Massen,†† Geuer,** Bar and

* 'Nouvelles Archiv d'Obst et de Gyn.,' vol. iv, 1889.

† Quoted by Allen, 'Amer. Journ. of Obst.,' vol. xxxix, p. 621.

‡ Favre, Virchow's Archiv, vol. cxli, pt. 2, Aug., 1895.

§ Zweifel, 'Centralbl. f. Gyn.,' 1895.

‖ Schmorl, 'Archiv f. Gyn.,' Bd. xl; 'Centralbl. für Gyn.,' 1891, p. 610; 'Verhandl. der Deutsch. Ges. f. Gyn.,' 1891.

†† Massen, 'Répertoire Chirur. d'Obst. et de Gyn.'

** Geuer, 'Centralbl. f. Gyn.,' xlii, 1894.

Guyusse,* Williams, and Winkler,† have confirmed or enlarged his observations. On this point, again, the various observers are in striking accord.

In the first place there are numerous hæmorrhagic foci scattered throughout the liver. These are mostly minute, but sometimes under the capsule there is a large collection of blood. These hæmorrhagic spots appear to be minute infarctions, resulting from a thrombosis of the small blood-vessels. The hepatic cells in the neighbourhood of the infarctions are discoloured with bile, and their cell substance is filled with granular and fatty material. In many cases the outline of the cells is indistinct, and the nucleus breaking down. The appearance is, in fact, very like that of acute yellow atrophy of the liver and of phosphorus poisoning. Vinay and Geuer both describe the lesions as being those of acute yellow atrophy. Similar conditions are found in yellow fever: in fact, these are the hepatic lesions *par excellence* of acute toxæmia.

Besides these almost constant changes in the brain, kidneys, and liver, there are other lesions which occur less frequently. The spleen generally shows changes similar to those in the liver, the organ being enlarged with numerous hæmorrhages into its substance and under the capsule. The lungs present varying appearances, according to the date of death. Cases which die during the height of the eclampsia show, generally, pulmonary apoplexies, hypostatic congestion, and œdema, with subpleural and submucous ecchymoses. Cases which die, as they often do, a few days after the convulsions have ceased, often exhibit bronchitis, broncho-pneumonia, or lobar pneumonia.

Rarely extensive subcutaneous hæmorrhages are met post mortem (one extreme case is reported by Geuer ‡), a fact which may be related to the occurrence of various petechial and erythematous rashes during life.

* Bar and Guyusse, 'Annales de Gyn. et d'Obst.,' June, 1897.

† Karl Winkler, 'Virchow's Archiv,' vol. cliv, p. 187.

‡ Geuer, 'Centralbl. f. Gyn.,' xlii, 1894

Lastly, there is the actual condition of the blood itself to be described. Unfortunately this part of the pathology has received very scant attention, although it may afford most valuable indications as to the pathology of the disease. In the search for vital and chemical toxins the physical and microscopical characters of the blood have been neglected. Even such a simple fact as the specific gravity of the blood does not seem to have been systematically measured. One of the older theories of eclampsia ascribed it to a condition of hydræmia, but this condition has never been demonstrated to exist. There have been several scattered observations relating to the naked-eye appearance of the blood. During the height of the disease the blood is always very dark, partly as the natural result of the embarrassed respiratory movements. But its viscosity is increased, too, as is evident by the description of its being "thick" given to it by several writers, such as Jardine and Allen. But most notable of its morbid conditions is its greatly increased coagulability. Jardine remarks on the very scanty hæmorrhage after labour, and I have pointed out the same feature in both my cases. And in Germany and America, where it is common practice to deliver an eclamptic woman in whom the uterus is hardly contracting at all, and in whom the os is closed, by violent cutting and tearing methods occupying only five to fifteen minutes, it is very remarkable that the serious post-partum hæmorrhage which we should expect is conspicuous by its absence. I have remarked on the great readiness with which the blood clotted in the cannula in both my cases before the solution began to flow. Herman states that, post mortem, the right side of the heart always contains clot. Now these facts are all the more striking when it is remembered that eclamptic women are cyanosed, and partly or completely asphyxiated. In asphyxia from other causes the blood clots slowly, and one of the classical *post-mortem* signs of death from asphyxia is the fluidity of the blood in the right chambers of the heart.

No doubt this increased coagulability of the blood is

related to the multiple thrombi found in the brain, lungs, liver, and kidneys, described especially by Schmorl, Winkler, and Welch.

The two former authors also refer to the presence of metastatic thrombi, composed of liver, bone, marrow, and placental cells; but whilst Schmorl attaches great importance to these cellular thrombi, Winkler states that a similar condition is found in cases of acute infective disease, which are accompanied by epileptic convulsions, and due in his opinion to rapid changes in blood pressure.

Before leaving this part of the subject, I should like to refer to the case of Jardine's, in which an eclamptic patient died ten days after labour as the result of the perforation of a duodenal ulcer. I would venture to suggest that this ulcer arose as a coagulation necrosis, similar to those in the numerous thrombosed areas described above. The commonest disease which is associated with gastric and duodenal ulcers is chlorosis, and in this the blood rapidly clots, and thrombosis is of common occurrence.

Summing up, then, the result of experimental and *post-mortem* observations, it may be broadly stated that eclampsia is due to the toxic condition of the blood, which first increases its coagulability, and then causes it to form multiple thrombi in the various organs, chiefly the kidneys, liver, lungs, and brain.

But while all are agreed that the blood is highly toxic, all differ as to the nature of the toxin. Old theories called it urea, or carbamide of ammonia, and more recently it has been declared to be kreatinin by Zweifel,* and paraxanthin by Stewart;† and, for the matter of that, it might be called uric acid with as much show of reason as has been adduced in the many diseases which have been attributed to that substance. During the eclamptic state urea and uric acid are not excreted by the kidneys, except in very small quantities; and when the condition

* Zweifel, 'Centralbl. für Gyn.,' 1895.

† Stewart, 'Amer. Journ. of Obstetrics,' vol. xxxix.

ameliorates, large quantities of these substances are washed out by the kidneys.

One fact is of great significance in pointing to the purine bases as being connected with the causation of eclampsia. And that is the great potency of milk diet as a prophylactic treatment in this condition. Amid the bewildering contradictions and differences of opinion expressed by speakers at the Geneva Congress of Gynæcology, the truth of this fact was agreed to by all, viz. that when albuminuria, headache, and œdema in pregnancy threaten eclampsia, a milk diet will rapidly remove this condition and avert the catastrophe. Herman thinks that rest is as essential as the absence of meat foods. Ferré* goes further than all others in the importance attached to the milk diet. He says that he has never seen convulsions occur in a patient who has been subject to a milk diet for one week; and, further, that although the albuminuria and œdema may not disappear under that diet, yet the tendency to fits invariably disappears. It would be very interesting to know whether this observation is confirmed by the experience of others.

In my second case, many of the symptoms returned as the result of a sudden and immoderate return to a meat diet.

Schmorl considers that the placenta, whose tissues naturally contain a ferment which promotes coagulation of the blood, in this disease either produces the ferment in excess, or, by the metastatic distribution of its cells in the circulation, carries the ferment to organs where the multiple thrombosi occur as a result.

The fœtal tissues, too, have been credited with originating the specific toxin of the disease. And this theory forms one argument in favour of the deliver-at-any-risk-as-quick-as-you-can line of treatment. Now, it is true that the fœtal tissues have been found in a condition resembling that of the mother occasionally, and that the fœtus is often convulsed both before and after delivery,

* Ferré, 'L'Obstétrique,' Nov. 15th, 1896.

and that it exhibits albuminuria sometimes. But this is only equivalent to saying that the toxin of the disease circulates in the fœtus as well as in the mother. If the fœtus formed a poison which acted then upon the mother, we should expect the child to be killed by its own poison much more frequently than is the case.

Baron and Castaigne* have performed experiments the results of which they bring forward in support of the theory that the death of the fœtus is followed by the cessation of convulsions. They found that toxins injected into the fœtal circulation poison the mother, and much more rapidly if the fœtus is alive than when it is dead.

But if the active circulation of the fœtus is necessary to explain the maternal blood-toxicity, then how does eclampsia, which occurs after delivery, arise? And, further, there are numerous cases recorded—two or three occurring in Jardine's series—in which violent eclamptic convulsions occurred when the fœtus was proved by its macerated condition to have been long dead. Drs. Griffith and Eden† have lately described the microscopical appearances of an ovum in an early pre-eclamptic stage, and they find changes in the chorion and decidua, which point to these structures as being the seat of primary change. On the whole, therefore, there seems more evidence in favour of regarding the placenta as the source of the toxin than the fœtus.

In all our conceptions of eclampsia we must bear in mind that there are two stages or degrees in the disease. There is the pre-eclamptic stage, in which the symptoms and signs of disease are so slight, and their onset so insidious, that they are too often overlooked. They are headache, pallor, vomiting, slight œdema, with diminished urine and albuminuria. The albumen constitutes $\frac{1}{4}$—$\frac{1}{2}$ the bulk of the boiled urine, and consists chiefly of paraglobulin. Herman calls this the chronic renal dis-

* Baron and Castaigne,' 'Archiv de Méd. Exper.,' Sept., 1898.

† Griffith and Eden, 'Trans. Obstet. Soc.,' 1899.

ease of pregnancy. It is distinguished from chronic Bright's disease by the diminished urine with the large proportion of albumen; and from acute Bright's disease by the slight degree of œdema, by the albumen consisting chiefly of paraglobulin instead of serum-albumen, and by the scanty occurrence of renal casts. Then, after a longer or shorter period, the second or convulsive stage is ushered in with cataclysmic violence. But be it noted that it is only in a certain proportion of cases of the disease in which this second stage—called by Herman the acute renal disease of pregnancy—occurs at all. Roughly speaking, out of every 250 pregnant women five suffer from the first stage of the disease, but in only one of these does the second stage supervene.

It seems as though the organism were poisoned by the products of its own metabolism, derived chiefly from the alimentary canal, from the fœtus, and from the placenta, and that either by an excessive amount of these toxic products or by the sudden appearance of a new toxin, the multiple thrombi are formed which lead to the second acute or convulsive stage of the disease.

It appears that if the liver be not overworked in the destruction of maternal toxins—and this is best provided for by a milk diet and a restriction of muscular exercise, —that it can then cope with the fœtal toxins, and the acute stage of the disease is not reached.

Having considered the pathology and morbid anatomy of eclampsia in some detail, we are now in a position to discuss the way in which the transfusion of hot saline solutions can act as a cure of the disease.

I would venture to suggest that it is by diluting the blood, and so hindering the occurrence of the multiple capillary thrombi, and also, possibly, by dissolving thrombi already formed.

It has been abundantly proved that thrombosis consists in the first place in the agglutination of blood-platelets. (And although no observations have been made on the number of blood-platelets in eclampsia, yet Hayem has

remarked that they are in great numbers in the latter months of normal pregnancy.) It is only after the thrombosis has existed for some time that it becomes fibrinous, and it therefore seems possible that platelet thrombi may be as quickly dispersed as they are formed while they are yet young by a change in the composition of the plasma. If this be the *modus operandi* of the saline transfusions, one fact receives a ready explanation. This is the almost immediate improvement in the patient's condition, evinced especially by a lessening of the cyanosis and a more regular breathing. The pulmonary capillaries would naturally be those first to feel the good effects of the added salt solution.

All those who have used or described this method of treatment have attributed its beneficial action mainly to its diuretic action. But I have pointed out that this diuresis takes place hours after the disease has begun to abate, and in my opinion is one of the results, and not the cause, of the abatement. This has been so, too, in all the cases in which the details are given—that is to say, in patients who recover, there is an immediate improvement, with a lessening of convulsions at the time of transfusion, and about twenty-four hours afterwards the kidneys begin to act freely. If, on the other hand, the transfusion acted primarily as a diuretic, then we should expect to see no improvement in the patient's condition until this diuretic action had been exhibited.

It is obvious that the method is only in its infancy, and it may perhaps be found possible to add to the transfused liquid some active anti-clotting agent to make its action more prompt and certain.

Since writing the above I have been much interested to find some observations by Freudweiller,* which bear out the theory of the embolic or thrombotic nature of conditions allied to eclampsia. He is writing about the dangers of gelatine injections used as a hæmostatic agent. One case died in convulsions; in a second, a condition of

* 'Centralblatt f. klin. Med.,' July 7th, 1900.

nephritis was made much worse with increased albuminuria and appearance of hæmaturia and hæmoglobinuria; a third case was similar to this; and in a fourth case (of metrorrhagia) the patient rapidly died with symptoms of uræmia. Both ante and post mortem multiple thrombi were found, sometimes even in the carotid arteries. These observations prove that all the essential symptoms of eclampsia can be produced by a coagulating agent, and they, therefore, tend to support the theory that similar symptoms may be removed by an agent which hinders coagulation.

Dr. Herbert Spencer congratulated the author upon his interesting paper, which dealt with a modern method of treatment for which much had been claimed. Dr. Spencer's experience of treating eclampsia by saline infusion was small; indeed he had only employed it in two cases, and although both these cases recovered he was far from attributing the result to the saline infusion. The mortality of eclampsia varied very considerably, according to circumstances, some of which were difficult to appreciate. Before the treatment by morphia he had had a long series of successful cases, and then several which were fatal. He thought cases treated by morphia did better than those treated by chloroform, chloral, and bromides, etc., but he had had failures with the morphia treatment too. In his experience, however, morphia lessened the fits more than any other treatment, and as the diminution of the fits lessened the chance of cerebral and hepatic hæmorrhages, he thought its value was great, though its employment was not free from danger, especially if large doses were given. In one case, where there was a good deal of œdema of the legs, he had made incisions into the legs and fomented the incisions with a view to aid the elimination of the poison; as the case recovered, he would be inclined to try the effect of the incisions in other cases. With regard to the effect of saline infusions he had tried their effect in cases of uræmia twelve or fourteen years ago without benefit. The author of the paper had compared the mortality of cases treated by saline infusion with that of cases treated by other methods, to the disadvantage of the latter; but it must be remembered that from the former (all modern) cases septicæmia had been in great part eliminated, whereas it caused a considerable part of the deaths of the older statistics; moreover there was a tendency to publish successful cases when a new method of treatment was concerned, whereas if the case

terminated fatally it was more likely to be unrecorded (as an instance he mentioned that a Fellow of the Society had just told him that the only case in which he had tried saline infusion died). One remark in the paper needed correction, namely, the statement that the mortality of cases treated without saline infusion was "never less than 20 per cent." Ebinger* had published a series of twenty-eight cases from the women's clinic at Kiel, 1894 to 1900, with four deaths—a mortality of 14 per cent. If two cases (1 fatal), in which saline infusions were employed, be excluded, it will be seen that the mortality (11 per cent.) is less than that given by the author for cases treated by saline infusions. Dr. Spencer urged that saline subcutaneous infusions should be made with strict aseptic precautions, and that large quantities should not be injected at one spot, several cases of local gangrene, and even fatal septicæmia, having been recorded. He was not convinced that saline infusions had lessened the mortality of eclampsia.

Dr. Herman highly appreciated Dr. Groves' scholarly paper. It presented two topics for discussion: first, the clinical evidence of the benefit from intra-venous injection; second, the theoretical explanation of its action. He agreed with Dr. Spencer in thinking that the figures given were not convincing as to the superiority of this treatment. Veit in his lecture advocating the treatment of eclampsia by morphia had reported sixty cases with only two deaths; and Charpentier, in a paper advocating treatment by chloral, had collected 239 cases, with a death-rate of only four per cent. Here were both a larger number of cases and a smaller death-rate than what was now put forward as evidence of the benefit of infusion of saline fluid. The theory put forward was that in eclampsia the coagulability of the blood was increased, but the only evidence of this was that in some cases the medical attendant had been surprised at the small amount of blood lost. Physiologists had, he believed, apparatus for exactly measuring the rate of blood coagulation; and it would be more convincing if the coagulability of the blood in eclampsia had been measured by an instrument of precision. He did not attach importance to the morbid condition said to have been found in the brain and quoted by Dr. Groves. In the article in Allbutt's 'System of Medicine,' to which Dr. Groves had done honour by quoting it, he had discussed anæmia and œdema of the brain, and given reasons for questioning their importance. A friendly critic had hinted to him that this part of the article was superfluous, for that nobody nowadays supposed that anæmia or œdema or congestion of the brain were morbid conditions which explained

* Ernst Ebinger, "Ein Beitrag zur Statistik, Prognose und Behandlung der Eklampsie," Kiel, 1900.

anything. Were the miliary hæmorrhages described by Dr. Groves anything but ecchymoses, such as were seen under the skin, the pleura, and elsewhere, and due to the tremendous venous congestion during the fit? Large cerebral hæmorrhage occurred so seldom that it could not be due to any condition which was a regular and essential part of the disease. He thought that cerebral hæmorrhage was occasionally seen in eclampsia, because in a few cases granular kidney and the vascular degeneration associated with it were present, and in such cases the arterio-capillary changes predisposed to cerebral hæmorrhage. Pregnant women with previously diseased kidneys were more liable to eclampsia than those with healthy kidneys. Dr. Groves had described the chronic renal disease of pregnancy under the name of the "pre-eclamptic stage." He (Dr. Herman) thought this term was hardly appropriate, seeing that not more than one in five of the cases suffered from eclampsia, and that in some cases eclampsia came on without any pre-existing renal disease. He thought the essential morbid condition in eclampsia was the acute degeneration of the cells in the great glands, the liver, and kidneys, and that the hæmorrhages were incidental and a result of the fits.

Dr. W. S. A. Griffith said that the Society was much indebted to Dr. Groves for his interesting paper, the subject of which had not been discussed there for some years.

He wished in the first place to point out the important mistake which Dr. Groves and many other writers on the subject made in discussing this subject under the title of "Puerperal Eclampsia," the disease being one of far wider extent than this term would indicate, for the cases in which eclampsia occur are only a small portion of the total number of cases in which the disease underlying eclampsia, namely, toxæmia with nephritis, is found.

It is quite obvious why these eclamptic cases are selected by writers of text-books; they occur so suddenly, and look so alarming and formidable to all who are concerned, that every practitioner expects full instruction how to deal with them; while the same disease without the convulsions, although much more frequent and equally serious, presents some of these alarming symptoms, and one may be asked to see a patient whose legs are so swollen that she can hardly walk, whose urine is scanty and loaded with albumen, and find her in her dressing-room entertaining her doctor and friends at afternoon tea.

It is absolutely essential that the disease be studied and taught in a much wider sense than is usual, beginning with the cases in which albuminuria and dropsy in slight degree are the only recognisable symptoms, to the graver cases increasing in severity, until even without eclampsia the health, if not the life, of the patient is in great danger, and through these to the cases

in which convulsions and coma occur in varying degrees of severity.

Such a method of instruction will be of the highest benefit to the practitioner, for it will lead him to a more rational and probably more gentle method of treatment in the urgent cases, and to a more rational and more active treatment in the cases which by the absence of eclampsia appear to be less urgent.

Cases of eclampsia and placenta prævia are alike in many ways; they suffer alike from the alarm to which they give rise and the danger of the methods adopted for their relief; the same principles of treatment apply to both; and while the fact is recognised that the patient's safety is greatly increased by delivery, it is forgotten in the hurry and anxiety to carry this out that the means used must be safe and not add to the danger. Forced delivery, morphine, pilocarpine, and septicæmia claim many victims who ought to have survived if less heroic measures had been adopted.

The method advocated by Dr. Groves is quite unnecessary except in a few special cases, but in these it would appear to be of real value by keeping the patient alive until the kidneys and other organs are able to resume their work. If this method is commonly adopted, it will obtain the same credit as a routine method of treatment from those who do not distinguish results *propter hoc* from those which are necessarily *post hoc*.

There is a group of cases which need to be distinguished from the ordinary ones, those in which there has been pre-existing nephritis, and in which the pregnancy occurs as a complication—a very dangerous condition.. In these the termination of pregnancy without delay is imperative.

Further discussion of the paper was adjourned till the next meeting (see p. 148).

MAY 1st, 1901.

Peter Horrocks, M.D., President, in the Chair.

Present—33 Fellows and 4 Visitors.

THE DEATH OF QUEEN VICTORIA.

The following letter from the Home Secretary was read:

Home Office,
Whitehall;
March 22nd, 1901.

Sir,—I am commanded by the King to convey to you hereby His Majesty's thanks for the Loyal and Dutiful address of the President and Fellows of the Obstetrical Society of London expressing their sympathy with His Majesty and the Royal Family on the occasion of the lamented death of Her late Majesty Queen Victoria.

I am, Sir,

Your obedient servant,

(Signed) CHARLES T. RITCHIE.

The President of the Obstetrical Society of London,
20, Hanover Square, W.

Books were presented by Professor Kleinwächter, the Boston (U.S.A.) Lying-in Hospital Staff, and the Society of the New York Hospital.

Joseph Cater, M.A., M.B., M.D.Brux., was admitted a Fellow of the Society.

Henry Holman Weekes, M.D. (Old Brompton), and Francis Hamilton Ellis, M.B., B.C.Cantab. (Woking), were declared admitted.

The following gentlemen were elected Fellows of the Society:—Frederick James Purcell Daly, M.R.C.S., L.R.C.P.Lond.; George Bagot Ferguson, M.D., B.Ch.Oxon. (Cheltenham); Charles Hubert Thompson, M.D.Dublin; and Arthur John Wallace, M.D.Edin. (Liverpool).

Report on Dr. Boxall's Specimen of Cystic Fibroid with Carcinoma of the Left Ovary and of the Right Fallopian Tube.

We, the undersigned, have met this day, and after examining the specimen named above, have drawn up and signed the following report:

We agree with the author's description of the specimen. The left ovary, in addition to the small cysts mentioned, has been found to contain a solid nodule of the size of a chestnut. Microscopic examination of this nodule shows the structure of a soft carcinoma, corresponding in character to that of the small nodule found at the fimbriated end of the Fallopian tube on the opposite side. We are of opinion that the ovarian growth is the primary seat of the disease. Since the specimen was shown the uterine cavity has been laid open and a mucous polypus found at the fundus.

J. H. Targett.
Cuthbert Lockyer.
Arnold W. W. Lea.
Robert Boxall, *Convener.*

April 24th, 1901.

Report on Dr. Arnold Lea's Specimen of Sarcoma of the Uterus and Pelvic Cellular Tissue.

We, the undersigned, have met this day, and after examining the specimen named above, have drawn up and signed the following report :

We have examined the specimen and agree in the author's description of it. The mass in the pelvic cellular tissue appears to be quite unconnected with the growth in the uterus. Around the urethra the growth shows evidence of necropsis with suppuration. Microscopically, sections of this infiltrated tissue show the structure of a round-celled sarcoma like that in the uterus, but the tissues in various parts show extensive round-celled inflammatory exudation and numerous hæmorrhages.

J. H. Targett.
Cuthbert Lockyer.
Arnold W. W. Lea.
Robert Boxall, *Convener.*

April 24th, 1901.

DERMOID CYST OF OVARY OBSTRUCTING LABOUR; DISPLACEMENT OF THE TUMOUR FROM THE TRUE PELVIS AND EXTRACTION OF THE CHILD WITH FORCEPS; REMOVAL OF TUMOUR FIVE WEEKS LATER; RECOVERY.

By J. M. Munro Kerr, M.B., C.M., F.F.P.S.(Glas.).

This specimen, a dermoid tumour of the left ovary, is of interest because it formed a complete obstruction to the passage of the child at the patient's last confinement some five months ago.

Briefly the history of the case is as follows :

Mrs. C—, 34, four-para, was seen by me in consulta-

tion with her medical attendant, Dr. Couper, of Dennistoun, on October 10th, 1900. Dr. Couper informed me that in none of her previous pregnancies or labours had there been any complications. She had also, she informed us, been perfectly well during this past pregnancy.

Dr. Couper recognised on his first examination the presence of a large swelling deep down in Douglas's pouch, which prevented the presenting head from being driven out of the parturient canal, although the os uteri was dilated to its full extent and the uterine contractions were strong.

On examination I found matters exactly as described, and noted that both tumour and head were firmly fixed in the pelvis. The patient was immediately put under chloroform and attempts made to replace the tumour. This, however, did not succeed until the head was disengaged, when without much difficulty I got the swelling up above the brim. I then applied forceps and extracted the child. The patient had an uneventful puerperium. Five weeks after the delivery I made out the tumour low down in Douglas's pouch and freely moveable. I therefore opened the abdomen the following day and removed it without difficulty. The only striking feature about the tumour was the extreme length of the pedicle. The recovery of the patient was uneventful.

TRANSFUSION APPARATUS.

By Dr. Charles Egerton Jennings.

This apparatus can be used either for the infusion of saline fluid, or for the direct transfusion of blood mixed with saline fluid (in which case the donor's veins can be replenished with saline fluid); and Dr. Jennings remarked that his apparatus was the same as that which he had exhibited

before the Society twenty years ago, but ventured again to call attention to it, because at the last meeting some of the Fellows had observed that, though they considered it important to infuse saline fluid in cases of puerperal eclampsia, they did not know what apparatus to obtain or how to perform the operation, and he desired to remark further in reference to speeches made at the last meeting of the Society, that the administration of ammonia was perhaps the simplest and the most natural means of preventing coagulation of blood or of even dissolving recent coagula.

The PRESIDENT said that the transfusion of blood had been shown to be not only no good but positively injurious. He considered the cannula for putting into the vein had a grave defect in that it had its opening at the side and not at the point. The result was that the fluid could not so readily flow, inasmuch as the wall of the vessel covered over the opening of the cannula. This had been demonstrated many times.

Dr. JENNINGS, in reply to the question which he had been asked, stated that it was Sir Benjamin Ward Richardson who, many years ago, published an invaluable work on the "Cause of the Coagulation of the Blood," and though there was proved by the author to be a variety of circumstances which would hasten and retard coagulation, yet the work referred to had rendered it beyond doubt that there existed normally in the blood an ammonia, in minute proportion, which prevented coagulation from occurring within the body. Of course the injection of ammonia into the veins in too large a dose would act as a poison, and when saline fluid was infused the quantity of liquor ammoniæ added to the fluid should not exceed ·5 per thousand. To put it another way, five minims of liquor ammoniæ added to one pint of saline fluid would materially assist in retarding coagulation of the blood or in dissolving coagula recently formed, and would be a moderate dose of ammonia.

Dr. Jennings ventured to say, in reply to the President, that there was not any objection to the situation the aperture of his canuula occupied in respect to the point which acted in place of a probe to guide the cannula adroitly into the vein along the groove on the inferior surface of the phlebotome. After insertion the cannula must be held levelly within the vein, and fluid would then most easily pass through the aperture into the vein quite as quickly as desired, because it was found, in practice, that a pint of fluid or more could be infused within two or three minutes.

As to the apparatus modified for the direct transfusion of blood, it seemed to be the only one by which this operation could be performed without any danger of coagulation, as over a pint could be drawn from the donor, whilst in the case of Aveling's or Roussel's apparatus coagulation would be sure to occur within the instrument before a few ounces had been transfused. In actual practice Dr. Jenning's apparatus had succeeded beyond expectation.

A CASE OF (?) HYDATIDIFORM CYSTS GROWING IN THE VULVA.

By Lt.-Col. A. J. Sturmer, M.R.C.S., L.R.C.P.

The specimen was referred to a Committee consisting of Drs. Amand Routh, Griffith, Eden, and Mr. Targett.

ADJOURNED DISCUSSION ON DR. HEY GROVES'S PAPER ON THE PATHOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA, WITH SPECIAL REFERENCE TO TREATMENT BY SALINE TRANSFUSION.

The discussion was resumed by Dr. T. W. Eden, who said that one of the points upon which all observers were agreed was that albuminuria was attended by a heavy fœtal mortality, variously estimated at from thirty to seventy-seven per cent. This fact had been known for a very long time, but attempts have recently been made to show that even in cases where the fœtus was born alive, it was imperfectly developed; that is, was below the normal size and weight. The observations of Wippermann (1899) appeared to place this point almost beyond dispute. It was most important to note in this connection that a diseased condition of the placenta was also very frequently met with in albuminuria, and it seemed probable that this condition had much to do with the heavy fœtal mortality, and the feeble degree of development attained by living children. Without entering into detail, the placental changes might be said to consist of extensive infarction, which had been termed "pathological infarction" to distinguish it from the normal process of infarct formation in the adult placenta. In "patho-

ogical infarction," one third or half of the whole organ was not infrequently affected, leaving an amount of healthy placental tissue insufficient to maintain the development of the fœtus. Infarction in the healthy placenta had been shown to start in obliteration of the fœtal arteries; in "pathological infarction," arterial obliteration attained a degree of severity seldom seen in the normal process. The primary lesion was probably identical in the two. It was impossible in the present state of our knowledge to do more than attempt to form a theory of the causation of the placental lesions. It seemed to him that the toxæmic theory of the causation of albuminuria offered the best explanation of the clinical phenomena of this disease, and also of the occurrence of these placental lesions. The accumulation of toxins in the maternal blood would rapidly affect the quality of the fœtal blood, and the changes in the fœtal arteries would then be due to the impurity of the blood flowing through them. The nature and source of the toxins in the maternal blood were points at present undetermined. They might be formed in the maternal tissues, but there was something to be said for the alternative view that they were the products of fœtal tissue-metabolism. For instance, the association of the disease with pregnancy itself suggested it, the rapidity with which the disease cured itself after labour would be due to the withdrawal of the source from which the poison is derived. Other important evidence was derived from observations (Barbour, Winckel) upon the rapid amelioration of symptoms which sometimes followed the death of the fœtus in utero, which would be accounted for by the cessation of the production of the poison. If the toxæmic theory of albuminuria were accepted, the renal and hepatic changes must be regarded as mere incidents of the disease and not as the cause of it. The great objection to this theory appeared to him to be that it proved too much, for without the aid of some other hypothesis, it would prove that every pregnant woman must suffer from albuminuria. There must in the first place be a deficiency in the normal rate of elimination, allowing for the accumulation of toxins in the blood, and thus starting the whole train of symptoms. Sir Andrew Clark had described a condition of "renal inadequacy" due, not to definite changes in the kidneys, but to deficient elimination through those organs. It was possible that some such condition occurring during pregnancy was in reality the primary fault on the part of the mother.

Dr. Arthur Giles said that he had listened with the greatest interest to Dr. Hey Groves's paper. In order to form a clear judgment as to the value of saline transfusion or any other therapeutic measure in the treatment of eclampsia, it was necessary to make some further differentiation than was involved in speaking simply of eclampsia. It appeared to him that the

omission to do this was accountable for some of the confusion that prevailed in current writings and for some of the divergence of views with regard to treatment. It was necessary in the first place to distinguish between renal disease accidentally complicating pregnancy and cases of albuminuria with toxæmia due directly to the pregnancy itself. In the second place a distinction should be made between a condition of diminished or suppressed excretion and a toxic condition of the blood independent of such diminution or suppression. Primary renal disease was generally associated with imperfect elimination, and in such cases the value of saline injections was doubtful. Here it was preferable to rely on the measures applicable to cases of uræmia apart from pregnancy, viz. hot packs, diuretics, and free purgation. On the other hand, the toxis of pregnancy was not necessarily associated with faulty elimination; and in these cases the best results might be expected from the treatment advocated by Dr. Hey Groves. There was a considerable difference in the prognosis also in the two classes of cases; in the case of primary renal disease the immediate prognosis was worse, and there was little prospect of cure after delivery, whilst in the toxis of pregnancy the immediate prognosis was better, recovery after delivery was generally complete, and a repetition of pregnancy was not necessarily accompanied by a return of the symptoms. When saline injection was indicated, some authors advocated that it should be combined with venesection, especially in dealing with plethoric patients; and it appeared to him that there was a good deal to be said in favour of this plan. The injection of saline solutions into the cellular tissue, under the breast, or into the abdominal wall, was often easier and quicker than venous transfusion, and necessitated a smaller quantity of the solution. It had also been said that it was more efficacious, inasmuch as the fluid became mixed with the serum in the tissue before passing into the general circulation. For the rest, during labour and in presence of eclamptic fits, the two important steps in treatment were to administer sedatives, preferably chloroform, and to secure rapid delivery.

Dr. Robert Jardine (Glasgow), after thanking the Society for the privilege of speaking in the debate, said that he had read Dr. Hey Groves's paper with very great interest. He congratulated Dr. Groves on the successful treatment of his two cases, and also on the very able way in which he had brought the whole subject before them. He had listened to Dr. Eden's remarks on the toxæmic theory of eclampsia with great interest, as this was the theory he believed in. The toxin seemed to him to be a waste-product of tissue metabolism. Dr. Eden had referred to the statement that had been made that, on the death of the fœtus, albumen lessened or disappeared from the urine. He (Dr. Jardine) had seen three severe cases of eclampsia

with macerated fœtuses, so that he could not agree with that observation. In all three cases the albumen had been abundant. A very important point they had to consider was how the maternal system dealt with the waste-products. In the first place, elimination by the alimentary canal was below the normal. Constipation was the rule in pregnancy, and markedly so in eclampsia. After the discovery of albumen in the urine, the kidneys had naturally a great deal of attention paid to them. It seemed to him that the toxine acted on the kidneys much in the same way as poisons like turpentine and cantharidine did. Albumen and often blood appeared, excretion was lessened, and there might be complete suppression of urine. The kidneys recovered so quickly that one could not say they had been seriously diseased. In recent years attention had been drawn to the liver. He had brought with him sections from four livers, which the Fellows could examine. In every one of them there was marked evidence of degenerative changes in the cells. He also showed a water-colour sketch of a liver, which presented a remarkable condition of multiple hæmorrhages under the capsule. The liver substance in that case looked very like a compressed rotten sponge. He was perfectly convinced that the liver played an important part in the destruction of the toxine, but how it acted he was not prepared to state. He had published a case in which a second attack of profound coma had supervened on the fifth day, and during the continuance of the coma the urine excreted had been heavily loaded with bile pigment. The kidneys had been acting very freely, or otherwise the patient would probably have died.

Dr. Hey Groves believed that increased coagulability of the blood caused multiple thrombosis, and thus brought about the fits. In pregnancy there was a normal increase of coagulability, but at present he was unable to say whether or not this was specially the case in eclampsia. He hoped, however, to settle this point as soon as his friend, Dr. Carstairs Douglas, had arranged to carry out a series of experiments this summer to determine this question. In pregnancy the nerve centres were in a state of high tension as a rule, and he believed that the fits were caused by the toxine acting directly on the centres. It was a well-known fact that a severe mental shock or prolonged strain of the nervous system predisposed to eclampsia. Last year two of their cases had been in wives of soldiers at the front. The toxine seemed to him to affect the fœtus in exactly the same way as it did the mother. He had found albumen in the urine in all cases examined. He had also found it in the urine of several infants whose mothers had had bad albuminuria, but who had been rescued from having fits by prompt treatment. Given a toxine in the system he thought the most rational form of treatment was one which aimed at clearing

it out through the natural channels as quickly and effectually as possible. The bowels should be cleared as soon as possible. A hypodermic purge would be most useful, but unfortunately they had none. Croton oil often entirely failed, and he had twice seen œdema glottidis caused by it. The purgative he used was Epsom salts, from one to three ounces given through a stomach-tube, unless the patient was quite conscious. It was necessary to give very large doses. To act on the skin pilocarpine had often been used, but if the lungs were œdematous it was a very dangerous drug to use. He always used a hot pack or a steam bath.

To get the kidneys to act was the most important part of the treatment. Diuretics by the mouth were too slow in acting, but by giving a solution such as he used, viz., the normal saline solution with 1 drachm of acetate of soda to each pint, he claimed that diuresis was quickly established. From complete suppression to an excretion of from 1—4 oz. of urine per hour, he claimed, showed a diuretic action. By the second day diuresis was profuse. Besides this action the poison was diluted and the whole system stimulated. There was no doubt about the immediate effect upon the pulse. To control the fits he had used all the different drugs in use alone or along with the infusions. Morphia had never given him good results, and he was quite convinced that it lessened excretion from the kidneys. He had now treated about half-a-dozen cases without any anti-spasmodic, and they had done quite as well. If the cause could be removed the fits would soon cease.

The obstetric treatment had varied very much in different hands. The most difficult cases were those in which labour had not come on. He advised leaving the uterus alone unless the fits recurred frequently. If interference were necessary, and the cervix was at all rigid, he considered incision and rapid delivery the best method to adopt. Any bleeding would be beneficial, and it could be easily controlled with stitches. Cæsarean section had been practised, but the death-rate had been very high. In all cases of operation the patient should be deeply under chloroform to prevent shock. In testing the results of this method of treatment the fairest way was to compare the results with those obtained in similar cases in the Glasgow Maternity Hospital. Dr. Munro Kerr had done this, and had found that during the last fifteen years eighty cases had been treated. The old methods had given a death-rate of 47 per cent., while the saline infusions showed a death-rate of 24 per cent., a fall of very nearly 50 per cent. It must be borne in mind that they had to deal with very bad cases, many of them actually moribund.

In a paper which would shortly appear in the 'International Clinics' he had analysed his own cases, twenty-one treated in

the hospital up to the end of the year, and one in private. Of the twenty-two mothers three had died. One had died of a perforating duodenal ulcer after recovery from the eclampsia. The second case had double pneumonia, multiple ulcers in the stomach, and patches of congestion throughout the intestines. She had been treated with morphia as well as the infusions, and during the forty-four hours she was in the hospital the kidneys had only excreted 11½ oz. of urine. The bowels had refused to act. The third case had a c. v. of three and a half inches, and required craniotomy. Her liver was markedly degenerated. Of the children only five were lost which might possibly have been saved. He thought he was entitled to claim that the method had not only lowered their death-rate markedly, but had also saved more children than the older methods. Dr. Groves had remarked that all the men who had tried this method were enthusiastic in its praise. He could endorse that statement. A little practical experience, and he had had not a little, was worth a great deal of theory.

Dr. Munro Kerr stated that in this discussion regarding intra-cellular infusion in the treatment of eclampsia he desired to support Dr. Groves and his colleague Dr. Jardine. He did so because he was convinced of its beneficial effect in cases he had seen treated by others and from those he had himself treated in his private and hospital practice. He thought the treatment had been rather harshly criticised at the last meeting of the Society, for as far as he could judge, with the exception of Dr. Spencer, none of the speakers had had any experience of it. He maintained that saline infusion acted beneficially in several ways: (*a*) It was a most powerful diuretic. He had found, however, that this diuresis was often delayed. In a case he had under his care recently in the Maternity Hospital it was delayed for forty-eight hours. Delay in the establishment of diuresis had, in the cases he had seen, been chiefly due to the free purgation that was early established by the large doses of Epsom salts introduced into the stomach by the stomach-tube. Doubtless also the diuresis was delayed by the pathological changes in the kidneys. In the perfectly healthy animal diuresis, he understood, was established almost immediately after the fluid was introduced into its cellular tissue. (*b*) The saline infusion acted as a diluent to the poison, and consequently rendered it less noxious. He was quite convinced this action in many cases explained the immediate improvement which sometimes followed its administration. Some might say that it was due to the stimulating effect the infusion had on the circulation, but that could not be its action in cases where there was a full bounding pulse. (*c*) The saline infusion acted as a powerful cardiac stimulant. In this connection he referred to a case of eclampsia in the eighth month of pregnancy, seen

by him some months previously, when the woman was in a condition of the deepest coma, with pulse 140 and intermittent after several eclamptic seizures. Immediately after the first infusion the pulse improved, and in the course of a few hours, after several more had been given, the coma gradually passed off. Labour in that case did not come on until two or three days later. As regards the results of the treatment in his hands, Dr. Kerr said that he had had ten cases with two deaths. In one of the fatal cases it was found, at the post-mortem examination, that both kidneys contained numerous small cysts; indeed, to the naked eye there appeared to be very little kidney tissue left. In the other fatal case he considered himself in a way responsible, for while he introduced about 800 oz. into the woman's system by mouth and infusion in the four days she was in hospital, he could get her to excrete only about 400 oz. She died with a large quantity of fluid in her cellular tissues.

As regards the treatment of eclampsia he did not advocate saline infusion to the exclusion of such drugs as morphia and chloral. One of these drugs should always, he thought, be given if there was much restlessness. What he always aimed at in giving these drugs, however, and he preferred morphia, was to give them as seldom as possible, and only if the saline infusion failed to relieve the restlessness and arrest the fits. He had tried tincture of Veratrum viride, and believed that in cases where there was a full bounding pulse—cases that were suitable indeed for venesection—Veratrum acted well.

Regarding the infantile mortality referred to in such an interesting manner by Dr. Eden, he was inclined to differ from the latter. While he was quite prepared to admit that occasionally placental changes might cause death or malnutrition in the infants of eclamptics, he was convinced these were usually caused by the toxins, produced in the maternal system and causing the disturbances there, passing by the circulation into the fœtal system. In other words, the maternal and fœtal disturbances were both the result of the same toxins. In support of this he referred to the frequency of albuminuria in the newborn infants of eclamptics. Also to the fact, known to him and pointed out many years ago by Sir James Y. Simpson, that these infants occasionally had convulsions after delivery. Changes such as were described by Dr. Eden, he was aware, were recognised by many as occurring in the placentæ of women the subjects of chronic Bright's disease; he was not aware they had been found so generally in the placentæ of eclamptics.

Dr. Amand Routh considered that the Society was greatly indebted to Dr. Hey Groves for coming up twice from Bristol to take part in this discussion. At the previous meeting one of the speakers, Dr. Herman, took exception to Dr. Groves' explanation of the way in which the convulsions were brought about,

namely, that "the actual convulsions and coma resulted when these toxins caused the coagulation of the blood and the multiple capillary thrombi." He agreed with Dr. Herman that this point had not been proved. Dr. Griffith had very properly pointed out that the fits were an incident and not an essential factor in the disease. This affected the question of treatment. As a rule, saline transfusion had not been used till the fits came on, but if it were given in the pre-eclamptic stage, the effect on the urine would prove a better test of its utility. They had heard the mortality statistics at the Glasgow Maternity before and after this method of treatment; but they were not told what treatment had been in vogue previous to the introduction of the method of saline transfusion. In Dr. Jardine and Dr. Groves's cases the saline treatment was not used alone, but was supplemented by the administration of salts, hot packs, Veratrum viride, etc. There was no doubt that transfusion had the effect of diluting the poison; but the same was true of venesection and purgation; and it seemed to him that in the two latter methods the effects would be more permanent. Whatever might be the value of saline transfusion in the pre-eclamptic stage, it seemed to him that they would still have to rely on sedatives in the treatment of the actual eclamptic convulsions.

Dr. M. Handfield-Jones thought that it was highly unscientific to talk generally of treating puerperal eclampsia by saline infusions, as if all cases of this complication were of the same nature and required the same treatment. It was quite true that in a large number of cases the retention of toxic products in the system probably accounted for the production of the convulsions, but in other cases the fits seemed to be originated by some profound disturbance in the central nervous system. Undoubtedly, in certain selected cases, the injection of saline fluid was an immense benefit, but it had not yet been demonstrated in what class of cases this remedy was really useful. Numbers of cases were cured by a single bloodletting, by the evacuation of the liquor amnii, or by the use of sedatives, and in such cases the transfusion treatment was absolutely unnecessary.

Dr. W. S. A. Griffith asked Dr. Jardine at what period after birth albumen was found in the urine of the infants he referred to; the small quantity of urine and the difficulty of securing it for examination frequently led to disappointment. He had reason to think that albumen was not unfrequently present at birth. Dr. Griffith had tabulated the cases of albuminous urine admitted to Queen Charlotte's Lying-in Hospital during the years 1899, 1900, and 1901, up to the end of March, in illustration of his remarks at the previous meeting.

Total deliveries ... 2630; 1-para, 1685; multipara, 945;
„ with albuminuria 135; „ 119; „ 16;
= 5%; = 7·2%; = 1·6%;
Of them 6 had eclampsia and all recovered; 91 had much albumen, many of them dropsy, 38 little albumen, some dropsy.

Children born alive, 122; born dead, 16 (2 craniotomy, 1 prolapsus of cord); discharged well, 114; died within two weeks of birth, 8.

There were 3 pairs of twins. In 1 case both were born alive and survived, in 2 cases one was born alive and one dead.

Dr. Griffith also related a case illustrating the necessity for the urine being drawn off by catheter for examination in these cases.

Mr. E. Rumley Dawson wished, as a general practitioner, to congratulate his brother general practitioner, Dr. Groves, on his paper, but as he had himself had no practical experience of the treatment he did not propose to criticise it. He rather desired to call attention to, and express his dissent from, some of the remarks already made during the present discussion. He especially alluded to the statement made by Dr. Japp Sinclair that no general practitioner should have cases of eclampsia, since he ought to prevent them from arising; and that no general practitioner "should miss the fact that the patient is suffering from uræmia," for he should regularly obtain samples, say every month, of the urine passed by every patient who had engaged him to attend her in her confinement, and when albumen was found, the medical man should by treatment prevent eclampsia developing at the time of the confinement. Mr. Dawson wished to point out that a busy general practitioner attends from 150 to 250 cases of midwifery a year, and if the urine of all these cases is to be examined monthly, it seemed to him that he would have no time left for anything else but testing urine. Dr. Dawson dwelt on the case just narrated by Dr. Griffith. A patient was thought to be about to have eclampsia, because albumen was found in several specimens of her urine passed naturally, but the urine drawn off by the catheter was found to be free from albumen. Dr. Griffith's experience showed how very easy it would be for mistakes to arise, and how impossible it would be for the general practitioner to carry out Dr. Sinclair's doctrine. Did he seriously maintain that every pregnant woman was to have the catheter passed monthly by the general practitioner engaged to attend her? Mr. Dawson, too, wished to emphatically protest against the argument raised by Dr. Japp Sinclair, a teacher of obstetrics, that the treatment of eclampsia by saline injection or transfusion should not be advocated and taught to the general practitioner. Dr. Sinclair deemed the operation difficult or even occasionally dangerous. This seemed to Mr. Dawson a very poor argument indeed against the suggested treatment.

The PRESIDENT said he was not convinced by the cases published that in saline transfusion we had a remedy for puerperal eclampsia. As a fact there were already many remedies or modes of treatment, and whenever a disease or illness had several methods of treatment, it generally if not always meant that there was no known cure. He could not in any way accept that a cure was now to be had because of the marked improvement in some of the worst cases after saline fluid had been injected. He remembered well how very delighted he was at the result of injecting pilocarpine subcutaneously. In some of the very worst cases he had ever seen the change for the better when the sweating had been induced was most striking, and the fits had at once ceased without further recurrence. Nevertheless subsequent experience had shown that this was by no means an invariable rule. He did not agree with Dr. Jardine that pilocarpine should not be used because it was a dangerous drug. Many of our best remedies were dangerous drugs. Pilocarpine in some cases produced so much salivation that the patient was in danger of choking, and the head had to be held face downwards over a vessel to allow the saliva to run out. Still he believed that pilocarpine judiciously used was a valuable mode of treatment in puerperal eclampsia. With regard to the injection of saline fluid he thought it was perhaps better not to inject it into the veins, but into the cellular tissue and rectum, because it must be remembered that in these cases there had been no loss of blood, and hence there was no underfilling of the vascular system as in cases of profound hæmorrhage, and moreover the blood-pressure was generally raised owing to the convulsions, and therefore it might not be without danger to add rapidly several pints of fluid. He did not for a moment believe that the blood would absorb the saline fluid from the cellular tissues or from the rectum to any dangerous extent, because it was a physical process (osmosis, etc.), and the blood would cease to absorb any more when the vessels were so full that any addition would overfill them. Nevertheless, he could not help thinking that if there was any truth in the theory that puerperal eclampsia was due to a toxin circulating in the blood, and any truth in the theory that diluting the blood would cure or mitigate the fits, then blood should be drawn from one median basilic vein and saline fluid injected into the opposite one, or, at all events, blood should be withdrawn from a vein and saline fluid injected into the cellular tissues and the rectum, whence it would be rapidly absorbed, and so restore the blood-pressure and at the same time dilute the blood. He considered that sufficient evidence had been brought forward by Drs. Groves, Jardine, Munro Kerr, and others to warrant further trial of this method of treatment in puerperal

eclampsia. At the same time it must be remembered that there were many cases that got well with no treatment at all beyond seeing that the patient did not injure herself and delivering her as soon as possible. He had seen two cases within the last few weeks which had got better without any treatment beyond delivering the patient. It was really in the worst cases that the treatment should be tried.

Dr. Hey Groves, in replying, said that his statement that the maternal mortality had never been less than 20 per cent. was based on Prof. Charpentier's statement at the Geneva Congress of Gynæcologists in 1896, the year after Veit's paper on the morphia treatment, and when that treatment had had ample trial. Ebinger's series only numbered twenty-eight, and included eight cases in which the fits came only after labour. In the fatal case mentioned by this writer, in which saline transfusion was used, fits had been occurring forty-eight hours before the transfusion, and so there was little chance of it succeeding, as the patient was moribund. Although Veit with morphia and Charpentier with chloral had had wonderful results, yet others had not had the same experience with these drugs. So that many obstetricians of experience had considered themselves justified in resorting to accouchement forcé or Cæsarean section rather than rely upon them. Zweifel's figures are forty-nine cases by drug treatment, with a mortality of 32 per cent., and eighty cases of accouchement forcé, with mortality of 15 per cent. ('Centralbl. f. Gyn.,' 1895). Hillman ('Zeitschrift für Geb. u. Gyn.,' 1899) relates forty cases treated by Cæsarean section, with a mortality of 50 per cent. Such methods and statistics showed that in the opinion of many the narcotic treatment was not to be relied on. The figures given by Dr. Griffith agree very closely with those of Saft ('Archiv für Gyn.,' li), who states that albuminuria exists in 5 per cent. of cases of pregnancy, and in 32 per cent. of cases of labour.

Dr. Herman had said that the coagulability of the blood could easily be measured, but it was almost impossible to do this in private practice, as the medical attendant had his hands full in delivering and treating the patient. Further, although we could measure the rate of coagulation of the blood when shed, we could not measure its coagulability while still in the blood-vessels. With regard to Dr. Herman's statement that the punctiform hæmorrhages in the brain and other organs were the mechanical result of the fits, then why are such lesions not found in patients who die in the status epilepticus or in fatal cases of tetanus? When, in organs differing so widely in structure, function, and anatomical position as the brain, liver, kidneys, spleen, lungs, and intestine, exactly similar lesions, consisting of minute hæmorrhages and thrombosed vessels surrounded by areas of necrosis, were found, it is surely

justifiable to regard such lesions as due to a morbid condition of the blood or blood-vessels.

Dr. Jardine had laid great stress on the diuretic action of the saline transfusion. But according to his own statement that night, he only observed one to four ounces of urine passed within the hour following the transfusion—large quantities of urine not passing until twenty-four hours after. Now, if the patient is saturated with toxic material, then the passage of one to four ounces of urine could hardly relieve her in the way in which the saline infusion undoubtedly did. It seemed more simple to suppose that the salt solution by diluting the blood facilitated the stagnant circulation in the lungs, brain, and kidney, relieving first the cyanosis and dyspnœa, and later on the coma and anuria. The suggestion that the sudden anuria and coma of eclampsia was due to "renal inadequacy" and "nervous shock" was merely to relegate these phenomena to the regions of pathological mysticism.

In conclusion, Dr. Groves suggested the following summary of the treatment of eclampsia. In cases where there is incessant restlessness and excitement between the fits, morphia or chloral are indicated. In cases with profound coma, extreme cyanosis, stertorous breathing, and anuria, saline transfusions given in large bulk, and repeated if necessary, every six hours. During delivery, chloroform. General methods, such as purgation and hot packs, are useful in all cases.

JUNE 5TH, 1901.

PETER HORROCKS, M.D., President, in the Chair.

Present—46 Fellows and 9 visitors.

Books were presented by Dr. John Phillips, the North of England Gynæcological and Obstetrical Society, and Dr. Strassmann.

Timothy Leahy-Lynch, L.R.C.P., and L.M.Edin., Charles Herbert Thompson, M.D.Dubl., and Llewellyn Powell, M.B., B.C.Cantab., were admitted Fellows of the Society.

George Bagot Ferguson, M.D. (Cheltenham), Arthur J. Wallace, M.D. (Liverpool), and Edward Angus Johnson, M.B., B.S. (Prospect, South Australia), were declared admitted.

The following gentlemen were proposed for election :— Francis Rowland Humphreys, L.R.C.P.Lond., Francis Porteus Tyrrell Hilliard, M.A., M.B.Oxon., Robert Hamilton Bell, M.B., B.C.Cantab., Arthur Stephen Inglis, M.D.Aber., G. MacLellan Blair, M.B., B.S., Walter Amsden, L.R.C.P.Lond.

A DECIDUAL UTERINE CAST EXPELLED AFTER EIGHT WEEKS' AMENORRHŒA, TOGETHER WITH AN OVUM OF ABOUT FIVE DAYS' GROWTH.

By Dr. Fothergill (Manchester).

(See Plates X, XI.)

The patient who expelled this decidual cast of the uterus was a young lady whose general health was good. Menstruation had always been painless and regular. It was of the twenty-eight days type, its duration being from three to four days. There had been one previous pregnancy, which terminated in labour at term on October 16th, 1900; the child was not suckled. Menstruation recommenced five weeks after the confinement, and remained regular until February 12th, 1901, when the period came on as usual and lasted between three and four days. The March period was missed, the breasts enlarged and became tender, and some nausea was experienced.

On April 4th, at about 4.30 p.m., she had a violent pain, like a labour pain, which was followed by others, and by slight uterine hæmorrhage. I saw her at 8 p.m., when every symptom and sign of early inevitable abortion was present. I packed the vagina with a long strip of lint, made by cutting one end off a new roll of lint with a carving knife. A dose of bromidia was given and the patient passed a quiet night. At 10.30 p.m. the next morning I removed the strip of lint from the vagina, and then extracted the specimen now shown. It was placed in 4 per cent. formaldehyde solution, together with a small yellowish body the size of a split pea, which was found on the plug of lint. A vaginal douche was then given and no further bleeding occurred.

The specimen is a triangular sac of decidual tissue,

FIG. 1.

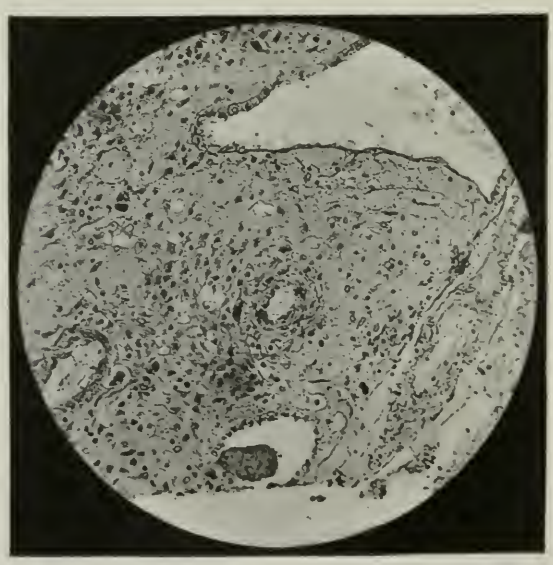


FIG. 2.

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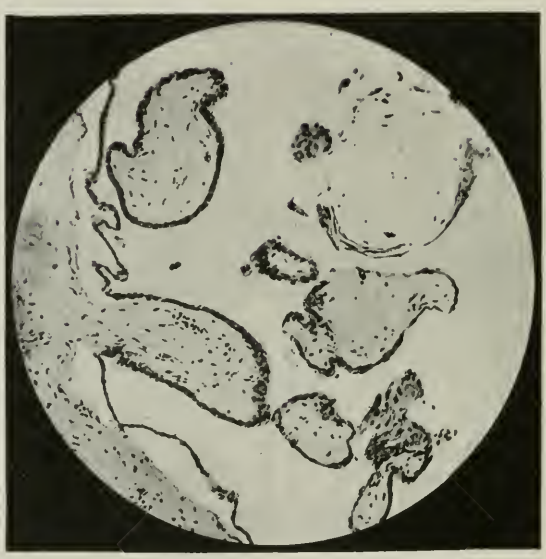
DESCRIPTION OF PLATE X,

Illustrating Dr. Fothergill's case of Decidual Uterine Cast expelled after eight weeks' Amenorrhœa, together with an ovum of about five days' growth.

Fig. 1.—Internal surface of cast.

Fig. 2.—Section of cast showing decidual cells, extravasated blood and uterine glands with remains of epithelium.



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DESCRIPTION OF PLATE XI,

Illustrating Dr. Fothergill's case of Decidual Uterine Cast expelled after eight weeks' Amenorrhœa, together with an ovum of about five days' growth.

Chorion and villi from ovum expelled with decidual cast. The epithelium is fairly separated from the chorionic membrane, but is *in situ* over the villi.

6 cm. in length, 3 cm. broad, and 1 cm. thick, with a shaggy external surface and three apertures, one at the apex representing the cervical canal, and two smaller ones at the base representing the openings of the Fallopian tubes. A longitudinal incision through one wall allows the whole of the internal surface to be inspected. This is smooth throughout, and is thrown into ridges separated by furrows, in whose deeper portions the openings of the uterine glands are easily seen. There is no trace of the presence of an ovum, nor does any part of the surface of the decidua look as if it had been altered by the action of chorionic villi. Fig. 1, Pl. X, shows the whole of the internal surface of the cast. The nature of the small body removed could not be recognised by the naked eye, so, thinking that it might possibly be an ovuline structure, I hardened it and embedded it in paraffin, together with a portion of the decidual cast.

Sections of the cast show it to be composed of typical decidual tissue. The uterine epithelium remains unaltered on a considerable portion of its surface. The uterine glands are unaltered in the deep layer of the decidua, but they are dilated and have lost their epithelium in the middle and superficial layers. There are numerous large decidual cells, and numerous spaces filled with fresh blood. No chorionic villi or portions of chorionic epithelium are visible. Fig. 2, Pl. X, is a micro-photograph of a portion of the middle layer of the decidua, and shows uterine glands partly lined by epithelium, as well as characteristic decidual tissue.

The small body above mentioned was cut up into a large number of sections, most of which were preserved. Examination of these shows that the body was a complete ovum, about half a centimetre in diameter. It consists of a sac composed of chorion only and covered completely with chorionic villi. No amnion is visible in any section, nor have I found any germinal area. This section which I exhibit was made right through the ovum. It is seen that the chorionic vesicle is shrunken, so that its cut

outline is convoluted and not regular in form. The villi are covered by typical epithelium, but the layer of epithelium belonging to the chorionic membrane itself has in most parts of the section become more or less separated from the connective-tissue layer of the membrane. The appearance of this ovum corresponds so closely to that of the ovum figured by Peters * during the second half of the first week of pregnancy, that it is probable that the ovum in my own case did not grow for more than five or six days. Pl. XI is a micro-photograph of a portion of the chorion and some villi, magnified sufficiently to show their minute structure.

Three similar cases have been recorded in the 'Transactions of the Obstetrical Society of London.' Dr. Griffith † showed a decidual cast identical with those found in extra-uterine gestation in the year 1894, and in 1896 Dr. Dakin † exhibited a similar specimen. In both of these cases, ectopic gestation was so strongly suspected that laparotomy was performed, but no ovum was found in either case. A year later Dr. Eden † described a similar specimen, which was expelled by a patient under the care of Dr. Herman, and he later grouped the three cases under the term "Spurious Abortion." ‡ He suggested two explanations of the condition:

(1) That an ovum was actually fertilised, but perished at a very early period without leaving traces of its presence, while the "genetic reaction" in the uterus and in the general organism progressed as in developing pregnancy.

(2) That some stimulus other than the presence of a fertilised ovum in the genital tract may lead to the formation within the uterus of a complete decidua, and may hold the menstrual functions in abeyance.

The fourth case now recorded is practically identical with the other three, with the exception that I was fortunate enough to find the ovum, and the case thus goes

* 'Ueber d. Einbettung d. menschl. Eies., etc,' 1899.

† 'Trans. Obst. Soc. Lond.,' vols. xxxvi, xxxvii, and xxxviii.

‡ 'Brit. Med. Journ.,' Nov. 20th, 1897.

far to prove that Dr. Eden's first suggestion as to the cause is the correct one. It also demonstrates, if indeed further proof is needed, that the so-called syncytium is a fœtal and not a maternal structure.

I have to thank Dr. David Orr for the beautiful micro-photographs with which I am able to illustrate this report.

Dr. EDEN said that he was glad that Dr. Fothergill had brought this interesting and complete case before the Society. The discovery of the ovum was fortunate, for otherwise the nature of the case might have remained in doubt. Its likeness to the cases recorded previously by himself and others was complete, and Dr. Fothergill was quite justified in concluding that these cases, like his own, were examples of uterine pregnancy. At this early period the chorionic and decidual tissues were completely separated from one another in the process of abortion, and the discovery of fœtal structures in the decidual membrane was therefore impossible.

Dr. T. G. STEVENS had examined a specimen resembling Dr. Fothergill's. It was a typical decidual cast without any evidence whatever of chorionic villi, and curiously the shedding of the cast was coincident with the discovery of a small tumour in the left broad ligament. This tumour was diagnosed as an extra-uterine gestation, but on operation turned out to be a small dermoid cyst. Dr. Stevens considered that these decidual casts were always the result of pregnancy, and that the ovum as a rule was lost with the decidua reflexa.

Dr. CULLINGWORTH, in view of the undoubted importance of Dr. Fothergill's specimen and of the light that it promised to shed on some cases that had hitherto been very difficult of explanation, moved that, subject to Dr. Fothergill giving his consent, a small committee be asked to examine and report upon it. It seemed especially desirable to take such a course as some difference of opinion had been expressed as to whether an amnion could or could not be recognised. In reply to a suggestion of the President's, that in the present state of the specimen a committee might find it impracticable to make a satisfactory examination, Dr. Cullingworth said that, as a large number of sections had been made and would be available for the use of the committee, it was quite possible that they would answer the requirements of the committee and enable it to pronounce a definite opinion.

The specimens were referred to a committee, consisting of Drs. Donald, Fothergill, Eden, and Mr. Targett.

TWO CASES OF FŒTAL ASCITES AND ŒDEMA.

By Henry Russell Andrews, M.D., B.S., M.R.C.P.

I. A Case of Fœtal Ascites and Œdema Causing Difficulty in Delivery. Cirrhosis of Liver.

In November, 1900, I was called to a patient in the London Hospital Maternity Charity, by a Maternity Assistant who said that the fœtal head had been resting on the perinæum for some hours.

The patient was 28 years of age, and had had five previous pregnancies.

Obstetric history.—The first four children were born at full time. The first, said to have been healthy at birth, died at four months of capillary bronchitis.

The other three are alive and healthy, aged respectively 8, 6, and 4.

The fifth pregnancy terminated in what the patient calls a miscarriage, although she thinks the fœtus, which was stillborn, was about seven months. She did not see the fœtus, and can give no account of its appearance.

During her fifth pregnancy she suffered from "ulcerated legs." Apart from this she gives no history of ill-health. Neither she nor her husband gives any history of syphilis. The scars, however, left from the ulcers are typical round, white "tissue paper" scars on the subcutaneous surfaces of both tibiæ.

The patient's urine contained albumen, but it was not a catheter specimen. The patient had no œdema and no

symptoms of albuminuria of pregnancy. A subsequent specimen of urine contained no albumen.

On examination nothing abnormal could be detected by abdominal palpation. The presentation was first vertex. Labour had proceeded normally until the head reached the perinæum. The head was not impacted, and the obstruction to delivery was evidently due to the trunk.

I applied forceps and delivered the head fairly easily. When the head was born, however, the body did not follow. The neck felt thick and œdematous. Forcible traction on both axillæ was necessary to deliver the body, which was not born until several minutes after the head.

The heart was beating feebly, and continued to do so for a few minutes.

The child was in a condition of "white asphyxia." Artificial respiration carried out for half an hour failed to resuscitate it. Death was apparently due to pressure in delivery.

The child was a well-formed female, weighing $6\frac{3}{4}$ lbs. The head, legs, and arms, presented no abnormal appearance.

The neck, chest, abdomen, and back, were œdematous, pitting deeply on pressure. The abdomen was distended and tense, the maximum circumference being $15\frac{1}{2}$ inches.

The placenta and umbilical cord presented no abnormal appearances.

On incising the abdominal wall, it was found to be over an inch in thickness. Clear serum rapidly drained away from the cut edges.

On opening the abdomen a considerable quantity of clear pale yellow fluid escaped. There were no flakes of lymph in this fluid, and the peritoneum appeared to be normal.

The ureters, bladder, and urethra were normal.

The kidneys were normal on naked-eye examination.

The spleen was normal.

The liver was firm and presented a granular appearance. The granules were well raised above the surface,

and were slightly lighter in colour than the rest of the liver.

On opening the thorax, about 4 or 6 ounces of clear fluid escaped from each pleural cavity.

Heart, lungs, and thymus healthy.

Microscopically, the liver shows well-marked cirrhosis both peri-cellular and lobular, there being a very extensive small round-cell infiltration. The sections in some parts show much congestion, and considerable destruction of liver cells. There is also a large number of leucocytes in the liver. There are no gummata to be seen in the liver. The adventitia of the arteries is thickened.

Microscopically the kidneys show no changes. There are a good many leucocytes in the interstitial tissue.

The placenta was unfortunately thrown away.

Microscopically the umbilical cord shows no changes.

Cases of fœtal ascites and œdema causing difficulty in delivery are sufficiently rare to be worth recording.

Ballantyne, in 'Diseases of the Fœtus,' discusses 69 cases of general dropsy. In the majority of these cases it was specially stated that the mothers were not syphilitic. In nearly all the cases there was fluid in the peritoneal, pleural and pericardial cavities. In most of the cases flakes of lymph are mentioned as being present in the peritoneal fluid. In 3 cases the liver is mentioned as being firm, contracted, or cirrhotic. In the only case in which the microscopic appearance of the liver is described, it is said that "no well-formed hepatic cells were present, though nuclei were present in abundance."

W. Fordyce, in 'Teratologia,' vol i, 1894, discusses 63 cases of fœtal ascites. In 8 there was evidence of syphilis. In 19 there was hydramnios. In nearly all the cases there was some naked-eye change in the peritoneum, sometimes acute inflammation, more commonly chronic. In 6 cases the liver was reported as cirrhotic, or showing an increase in the amount of connective tissue. Two of these cases with cirrhosis of liver, reported by Küstner, ('Archiv für

Gynäkologie,' 1876, p. 134,) were considered to be syphilitic. Berkeley Hill and Cooper speak of intra-uterine cirrhosis of the liver as a rare disease.

Twelve cases of fœtal ascites and fœtal œdema have been reported at the meetings of this Society.

Those which are not mentioned in the papers referred to are reported by—

Bassett. 'Trans. Obst. Soc. Lond.,' vol. xix. General dropsy with hypertrophy of the placenta.

Thompson. Ibid., vol. xix. Dropsy and ascites and hydrothorax.

Stevens. Ibid., vol. xxxvii. Ascites and general œdema with absence of urethra.

Boxall. Ibid., vol. xli. Fœtus with anasarca and large placenta. No notes.

In none of these cases is disease of the liver mentioned.

II. Case of General Œdema of a Twin Fœtus.

L. S—, aged 36, was admitted into the London Hospital on September 24th, 1900, under the care of Dr. Herman, who has kindly given me leave to report the case.

Complaints.—Legs have been swelling for the last three weeks, gradually getting larger, so that walking is difficult. Pain in left side and shortness of breath on and off for some time, worse during the last three weeks.

Continuous frontal headache for the last fortnight. Feels dizzy. Has not vomited. Bowels constipated.

Previous history.—Had "fever," does not know of what variety, when a child. No other illnesses. Has generally had good health. Has been married ten years. Has had five children. The first four are living and healthy. The fifth was an eight months child, only lived two days. Has had no œdema in previous pregnancies. No miscarriages. No history of syphilis.

Heart.—Apex-beat in fifth space, internal to nipple line. First sound at apex booming. Second aortic sound accentuated.

Patient thinks herself seven and a half months pregnant. Quickened about two months ago. Maximum girth of abdomen forty inches. Measurement from fundus uteri to pubes, seventeen inches. Fœtal movements felt. Fœtal heart not heard.

Fundi normal. Temperature 99·2°.

Urine—Rather scanty. Dark amber. Acid, one-eighth albumen, nine tenths of which is paraglobulin. Epithelial casts. Sp. gr. 1024.

Treatment.—Bed. Milk diet. Sulphate of magnesia.

On September 25th and 26th urine contained one eighth albumen. After the 26th there was only a trace. On discharge, October 16th, the urine was free from albumen.

Labour came on naturally on September 26th. A living female child, presenting by the vertex, was born first, followed by a placenta which presented no abnormal macroscopical appearance.

A second bag of membranes was ruptured by the finger, a breech presented, and a male child was born, followed by an enormous placenta. The heart was beating feebly, but artificial respiration, etc., failed to resuscitate it.

There were no signs of it having been long dead *in utero.*

It was universally œdematous, pitting readily on pressure, and the abdomen, which was much distended, evidently contained free fluid.

The child weighed 3 lbs. 10 oz. It was well formed.

On opening the abdomen, clear serum ran freely from the cut edges. The peritoneal cavity contained about 8 oz. of clear yellow fluid. The peritoneum was somewhat thickened and rather opaque. The bladder was empty, and urethra perforate. None of the abdominal organs showed any macroscopical changes.

The pericardial sac and both pleural cavities contained clear yellow fluid.

The heart was normal.

The thymus appeared to be normal.

The placenta was very large, pale, œdematous, soft and friable. Sections of the placenta were not very successful, owing to its friability. The chorionic villi are seen to have their lumen filled up with cells, and the vessels are apparently obliterated. The villi are not œdematous.

Sections of the kidneys show nothing abnormal.

Sections of the liver, which appears normal to the naked eye, show a very marked small-cell infiltration, exactly similar to that which is seen in congenital syphilitic cirrhosis. The liver cells themselves show distortion in shape, and fatty degeneration.

The spleen showed no changes.

The first child, which weighed 3 lbs. 4 oz., only lived four hours.

The mother made a good recovery.

Ballantyne in 'Diseases of the Fœtus,' says that general dropsy of the twin fœtus is much more commonly met with in the monochorionic variety of plural births. Only two cases are recorded (Bianchi, Tarnier and Budin), in which in a plural conception a fœtus lying in a separate chorion, or having a separate placenta, was affected with general œdema. There is no case on record of both fœtuses in a twin pregnancy being œdematous.

In none of the 19 cases discussed by Ballantyne is there a record of maternal dropsy or albuminuria.

In the monochorionic variety of twin pregnancy, it is easy to account for general œdema of one fœtus, if that fœtus is parasitic, but in the present case no such explanation is possible, as the two placentæ were entirely separate.

In this case the general œdema seems to be clearly due to the disease of the placenta.

It is interesting to note the very close resemblance in the microscopical appearances of the two livers, although the macroscopical appearances and the conditions are totally different. It is possible that in many of the cases in which the liver has been reported to be normal, a microscopical examination would have revealed changes as definite as in this case.

The liver of the first case was shown, and microscopical sections of the liver and kidneys of both cases, also of the placenta of the second case, and umbilical cord of the first.

Dr. Eden said that these cases of fœtal œdema were very interesting. With regard to the placenta of the second case, he noticed that there was no œdema of the chorionic villi, although Dr. Andrews described the placenta as being obviously œdematous to the naked eye. This raised the question of what was meant by placental œdema, for it was difficult to understand in what tissues the œdema was situated, if not in the chorionic villi. He would like to ask if an examination of the blood had been made, for a series of cases had been reported in recent years in which leucocytosis of the fœtal blood accompanied fœtal œdema. Abnormalities of the circulation, such as premature closing of the foramen ovale and thrombosis of the hypogastric vessels, had also been described in certain cases. Virchow had noticed that in general œdema of the bovine fœtus the thoracic duct was sometimes absent. He did not know if Dr. Andrews had investigated this point in his cases.

Dr. Andrews replied that the placenta had not been weighed. To the naked eye it appeared to be œdematous. In the microscopical sections the intervillous tissue seemed to have fallen out, as there was nothing to be seen except villi. The blood had not been examined. The heart in both cases was carefully examined and nothing abnormal was found. The umbilical vessels were examined and appeared to be normal. The lymphatics had not been examined.

SUPPURATING FIBROID TUMOUR OF THE UTERUS.

By Stanley Boyd, M.B. (introduced by Dr. Amand Routh).

E. G—, æt. 45. Admitted February 21st, 1901. The patient was sent to me by Dr. Donald, of Kingston, with

the diagnosis of ovarian cyst, proved by puncture to contain fœtid pus.

The patient first noted a swelling in the hypogastrium in February, 1900; it swelled before menstruation, and diminished as the flow was established.

In July, 1900, she caught a severe cold during menstruation. Previously regular. She had not menstruated since.

The tumour increased steadily and rapidly, and since November it had incapacitated her for work. Her appetite was small; vomiting frequent, constipation marked (often no action for a week, and then only after full doses of castor-oil), and micturition very frequent. In January, 1901, it is known that her evening temperature was often 100°, exceptionally it reached 102° to 103°. It was at this time that Dr. Donald drew off a little offensive pus from the tumour.

The patient stated that she had lost a great deal of flesh, and that her feet had swelled during the last five or six weeks.

On admission the patient was found to be of small stature, extremely emaciated, with threatened pressure sores at various points. She looked very ill, and was unable to rise from bed on account of weakness and of the size and weight of her abdomen. Her temperature was normal during the thirty-six hours in hospital previous to operation. Pulse 120; heart apex in fourth space; sounds weak, especially the second. She was passing very little urine, *e.g.* 3½ ounces in the twenty-four hours before operation; it contained a trace of albumen, and only 1·8 per cent. of urea. The brachial arteries were tortuous, but not hard. The wall of the greatly distended abdomen overhung the pubes considerably, and was very œdematous; the cuticle was raised by fluid over several lineæ albicantes. The lower extremities were much swollen, the back was œdematous up to the scapulæ; but the head and upper extremities were not œdematous.

The pupils were very small; there was no drowsiness, and no twitchings were noted.

The abdomen was greatly distended, hanging over the symphysis and iliac crests and bulging out at the loins; girth forty-five inches. There was no tenderness, and no outline of a tumour could be felt. Fluctuation seemed to be present, but a wave across the abdomen was very doubtful. The abdomen was dull everywhere except above a line, convex upwards, a little below the subcostal arch; both flanks were dull. Turning the patient on to her side did not cause the dulness to vary. No tumour was felt *per vaginam* or *per rectum*. The cervix was small and rather high; the body of the uterus was not felt; the sound was not passed. The pelvic floor and broad ligaments were quite soft, and appeared normal to the touch.

Diagnosis.—My diagnosis was "an ovarian cyst."

Operation.—On February 23rd, 1901, a mixture of equal parts of chloroform and ether was given. I made a two-inch incision through the swollen tissues midway between the umbilicus and pubes; and, without recognising either the peritoneum or any cyst wall, I opened a cavity from which twenty-four pints or three gallons of offensive pus were collected. A rubber tube of large calibre was inserted, the wound closed around it and dressed in the usual way, except that the tube was brought through the dressing and carried into a bottle between the legs; and when the patient was placed in bed her shoulders were slightly raised.

Before she left the table, however, I infused two pints of saline into a forearm vein to stimulate the kidneys and to combat the depression which even so slight an operation had caused.

Some threatenings of cardiac failure required treatment after she was placed in bed; but she soon began to mend, slept well, and passed urine freely.

By next morning more than three pints of pus had escaped without soiling wound or dressings. Her girth

had diminished by 10 inches; temp. 98° to 99·4°; pulse 110. She looked much better and said she felt so.

In the second twenty-four hours two pints of pus drained away; the abdomen was still smaller; much of the œdema had gone, and coils of intestines were visible above the umbilicus. Round about and above the tube an indefinite solid mass, taken to be the cyst wall, could be felt, becoming more distinct as the days went by. A finger passed through the opening confirmed this view as to the nature of the swelling, for it discovered a smooth, plicated wall. General improvement was steady; there was no fever, the pulse became less frequent, large quantities of urine were passed, and the drainage from the cyst soon became insignificant.

2*nd Operation.*—On March 9th (a fortnight after the first operation), I thought her well enough to bear removal of the supposed ovarian cyst, the opening into which was almost closed. The old scar and sinus were excised, and replaced by an incision four to five inches long. The wall of the cyst having been reached, adhesions between it and the anterior abdominal wall were found, and separated over an area having a three or four inch radius from the opening of the sinus. A thick-walled cyst of yellowish-grey colour was now drawn out, after separating many narrow omental adhesions; and it was found to spring by a two and a half inch circular base from the front of the uterus. This, enlarged to the size of an adult fist, and of the usual red colour, lay behind and to the right of the great cyst. One or two small fibroids sprang from its posterior wall. Considering the feebleness of the patient, I thought it would be best to enucleate the cyst wall; but an endeavour to do this led, first, to the exposure of a degenerating, but not putrid, fibroid, which was obviously the chief cause of the enlargement of the uterus; and, secondly, to the discovery that both broad ligaments and the utero-vesical space were occupied by large fibroid masses, so soft that my finger had not recognised their

presence. It was, therefore, clear that a hysterectomy was the only proper treatment.

This was carried out by securing the ovarian vessels and round ligaments upon both sides; dividing the anterior layer of peritoneum, and shelling out the fibroid from the broad ligaments and utero-vesical connective tissue in which they were loosely encapsuled; dividing the posterior layer of peritoneum, and making a short flap of it to cover the uterine stump; and finally cutting across the uterus above the internal os, seizing the uterine arteries as they were cut. Little blood was lost; the slight vascularity of these soft fibroids was most striking. The ureters were not seen. The left ovary was preserved, the right removed. The peritoneal wound was sewn up, and the over-sewn stump of the uterus had a peritoneal covering tacked down on to it. The intestines had been well guarded, but, having in mind the foulness of the opened cyst, I thought it best to use an iodoform gauze drain.

The operation lasted one hour twenty minutes. The pulse at the end was 120, small, and regular. The operation was remarkably well borne.

Parts removed.—The specimen, being a large one and not required by the Curator of the Museum, was not carefully preserved, and is not worth showing. The uterus was about twice the normal size. On its posterior surface were one or two small nut-like subperitoneal fibroids. In its anterior wall, exactly opposite the narrow attachment of the great cyst, was a very soft, fattily degenerated fibroid, probably the size of a large hen's egg. Springing from the anterior wall of the fundus, rather more on the left than the right, was the fibroid in the interior of which the large quantity of pus above mentioned (three gallons) had been contained. When removed the cavity would probably not have held more than a quart; but the wall was often three quarters of an inch thick, whereas at the first operation it was evidently very thin. The lower end of the cavity extended deeply into the pelvis in the left side. The interior of the cavity was fairly smooth,

with two or three small fibroids projecting towards it. Lastly, springing from the whole width of the front of the body of the uterus below this cystic fibroid, and extending into the utero-vesical and vagino-vesical connective tissue and into the broad ligament on either side, was a very soft œdematous fibroid, largely lobulated, so that it seemed to shell out in at least three fairly distinct masses.

During the first night the patient passed only two ounces of urine, but after this she caused no anxiety. The gauze drain was completely removed by the sixth day, and appeared to be quite sweet. About the twelfth day, however, a swelling was found above the right Poupart's ligament, and extending down to the uterine stump. At first it caused no symptoms, but a slight rise of temperature caused me to explore it on the eighteenth and to open it, as the syringe withdrew a bloody fluid containing a few yellow flakes. About seven ounces of offensive fluid escaped. The cavity was drained, and its contraction was very slow. There was still a long narrow track, yielding very little discharge, when the patient left hospital on May 10th. She was still thin, but had a good colour, good appetite, and good spirits. Urine was passed freely, sp. gr. 1012, no albumen, one per cent. of urea.

Dr. Herman said that Mr. Stanley Boyd's case, though unusual, was not unique. He had published* a case in which he removed from the abdomen a dead fibroid, which had been separated from the uterus and lay in a suppurating cavity among the bowels. Other similar cases had been recorded.

Dr. Lewers said he had met with a case in which there was a large subperitoneal fibroid, which on section showed two cavities containing puriform fluid. There were no symptoms pointing to the presence of pus.

Dr. Amand Routh congratulated Mr. Stanley Boyd upon his skill and upon the satisfactory issue of the case. He believed it to be a unique case. The general œdema of the abdominal wall and absolute dulness, except at the epigastrium, and the amenorrhœa, made a correct diagnosis impossible.

The President considered it was properly described as an unusual case. It was seldom that a fibroid suppurated to such

* 'Lancet,' December 8th, 1894.

a large extent. Practically the tumour had been converted into a large cyst containing fluid, and hence the diagnosis of ovarian tumour seemed the most probable. It was curious, too, that whereas in fibroid tumours there was generally menorrhagia, yet in this case there was not only no excess in the menstrual flow, but even amenorrhœa was present, which would again throw the diagnosis into a wrong channel.

PREGNANT FIBROID UTERUS REMOVED AT THE FIFTH MONTH.

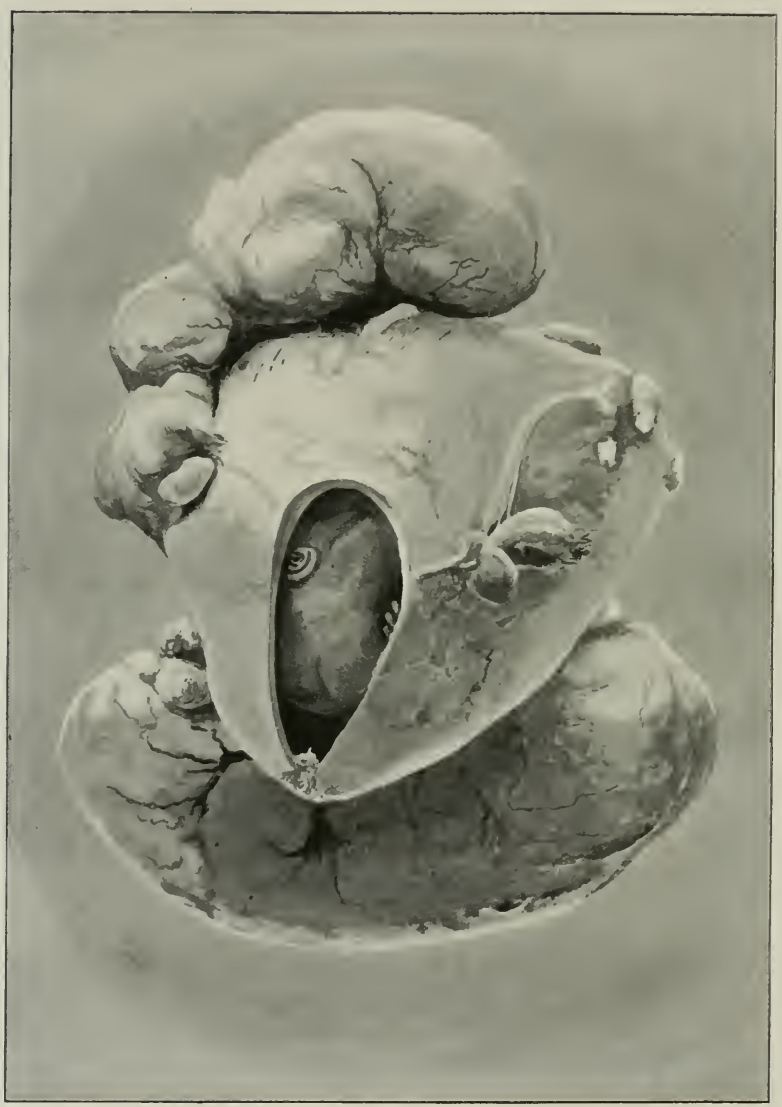
By Alban Doran, F.R.C.S.

(See Plate XII.)

The clinical report of this case is published in the 'Lancet' for March 2nd.* The specimen is mounted so as to show the fœtus and the relative position of two myomatous growths. The upper tumour occupied the right hypochondrium; the lower, which sprang from the lower segment of the uterus posteriorly, fitted firmly into the pelvic cavity, and pushed the cervix up against the pubes. The specimen belongs to the museum of St. Bartholomew's Hospital.

The patient was aged forty, married two years, and never pregnant until on this occasion. I watched the pregnancy for a month, and found that instead of rising out of the pelvis the lower growth was beginning to block the pelvic cavity. In consultation with Dr. Hubert Roberts we agreed that on account of the pressure symptoms it was not advisable to wait till term and perform Cæsarean section. I therefore performed retro-peritoneal hysterectomy on November 1st, 1900. The patient reported herself as in good health on June 3rd, 1901.

* "A Case of Hysterectomy for Uterine Fibroid in the Fifth Month of Pregnancy; Recovery," 'Lancet,' vol. i, 1901, p. 621.



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DESCRIPTION OF PLATE XII,

Illustrating Mr. Alban Doran's case of Pregnant Fibroid Uterus removed at the fifth month.

An opening has been made in the uterus exposing part of the head, one ear, and three fingers of the fœtus. At the fundus is seen the upper tumour, which occupied the right hypochondrium, whilst the lower tumour, which occupied the pelvic cavity, is represented behind and below the uterus.

This specimen is of interest in relation to several questions discussed by Dr. Archibald Donald. Incarceration of the tumour in the pelvis, one of the risks during pregnancy, was beginning. It is instructive to note how much the lower growth prejudiced gestation, whilst had it not existed the upper growth, even if double its actual size, would hardly have interfered with either pregnancy or labour. The obstruction of the natural passages was already complete. In short, in this case it would have been impossible to leave matters alone until term. The position of the lower tumour made myomectomy impossible. I dwelt upon the opinions and practice of our President and Dr. Gemmell as regards myomectomy in pregnancy in my original report of this case, where I also related some other cases where, as in this instance, the pelvis was blocked by the growth, and the uterus was removed to anticipate the inevitable perils of labour.

FIBROID TUMOURS COMPLICATING PREGNANCY AND LABOUR.

By Archibald Donald, M.D.

(Received March 27th, 1901.)

(*Abstract.*)

In discussing the risks which are involved by the existence of fibroid tumours of the uterus during pregnancy and labour, the writer comes to the conclusion that in the majority of instances neither pregnancy nor labour is seriously influenced by these tumours, but that in a small proportion of cases the danger to mother and child is greatly increased.

Attention is drawn to the various ways in which a fibroid tumour may dangerously complicate pregnancy, labour, and the puerperium. The risks during *pregnancy* may be summed up as follows:—(1) Rapid increase in size of the tumour, causing severe pain and great distress; (2) incarceration of the tumour in the pelvis; (3) serious pressure on the bladder; (4) degeneration of the tumour through diminished nutrition; (5) excessive rotation of the pregnant uterus; and (6) abortion or premature labour as a result of pressure or of submucous development of the fibroid.

Abortion or *labour* may be complicated (1) by obstruction of the natural passages; (2) by malpresentations; (3) by retention of the placenta or membranes; (4) by extrusion of the tumour during labour.

During the *puerperium* the presence of a uterine fibroid renders septic infection more likely.

The treatment of this complication of pregnancy and labour is then discussed. Two main groups of cases are recognised: (1) those in which pregnancy is allowed to take its course until

full term, or until the child is viable; (2) those in which it is necessary to interfere in the earlier months.

In the great majority of cases it is better to leave matters alone until term. If the tumour is located in the pelvis the treatment in each case must be settled by a careful examination —if necessary under an anæsthetic. Cæsarean section is preferable to delivery by the natural passages if the latter involves the employment of much force.

The notes of a case are given in which there was rapid enlargement of the fibroid during the first three months of pregnancy, but in which the condition of the patient was fairly good, and in which the pregnancy was allowed to go on until nearly term. The occurrence of albuminuria and rapid deterioration in the patient's health then rendered interference necessary. It was ascertained on examination under an anæsthetic that delivery by the natural passages would be attended with great difficulty. Cæsarean section and subsequent hysterectomy were successfully performed.

The treatment in the earlier months, when interference is necessary, is then discussed under the heads of (1) induction of abortion, (2) hysterectomy, and (3) myomectomy.

In the writer's opinion the induction of abortion ought to be abandoned. Notes are given of a case in which the patient was admitted to hospital on account of a rapidly growing fibroid. Spontaneous abortion occurred, but the placenta was retained, and had to be removed artificially. In spite of the most careful aseptic precautions septic infection occurred, and a serious illness resulted. Some months later the tumour was removed by abdominal myomectomy.

Notes of three cases of abdominal hysterectomy for rapidly growing fibroids in the early months of pregnancy are then given.

The writer advocates a preliminary myomectomy whenever it is possible, as by this measure the life of the child may be saved. In all cases of subperitoneal pedunculated fibroids the tumour ought to be removed during pregnancy. When the tumour is more sessile, and operation is required in the earlier months, it is best to enucleate the tumour and stitch up the gap in the uterine wall. If, however, the raw surface is too extensive, or if it is close to the uterine cavity, or if hæmorrhage

is difficult to control, the operation ought to be terminated by hysterectomy.

Within recent years the subject of pregnancy and labour complicated by the presence of uterine fibroids has hardly received the attention it deserves. My own interest in the subject was aroused by some cases which came under my care. In the following paper I wish to mention these cases, and to discuss the indications for the various lines of treatment.

If we refer to the literature of the subject we find an extraordinary difference of opinion as to the risks involved by this complication of pregnancy.

Hofmeier,* after investigating the results in a large number of cases in the Würzburg clinic, does not consider that there is any special tendency to abortion, and believes that operative interference is rarely necessary during pregnancy or labour.

Kottmann,† as a result of observations in Müller's clinic at Berne, endorses Hofmeier's opinion.

Kleinwächter ‡ agrees in the main with Hofmeier, but not with the statement that myomata rarely produce dangerous complications in pregnancy and labour.

Apfelstedt,§ from observations in Runge's clinic in Gottingen, thinks that the risks are exaggerated, and that interference is only required in exceptional cases.

Pasquali,‖ from observations on a large number of cases, concludes that abortion is a frequent termination of the pregnancy.

Kelly's ¶ statistics go to show that abortion is frequent: "266 married women with myoma uteri had 542 pregnancies, out of which there were 402 children born at term and 140 miscarriages"— a proportion of 25 per cent.

* 'Zeitschr. f. Geb. u. Gyn.,' Bd. xlii.

† 'Arch. f. Gyn.,' Bd. liv.

‡ 'Zeitschr. f. Geb. u. Gyn.,' Bd. xxxii.

§ 'Arch. f. Gyn.,' Bd. xlviii.

‖ 'Atti del 3 Congresso della Società Italiana di Ost. e Gin.'

¶ 'Operative Gynæcology,' vol. ii, Lond., 1895.

Nauss * in 225 cases found a maternal mortality of 54 per cent., and Susserot * in 147 cases a maternal mortality of 50 per cent.

In Lefour's * statistics of 300 cases of fibroid complicating labour the mortality for delivery by natural passages was 25 to 55 per cent. for the mothers, and 77 per cent. for the children.

These very dissimilar conclusions have been arrived at from a study of statistics by some authorities who have had a fairly large number of cases to deal with, or who have collected a record of cases from various sources. But the argument from statistics is even more unreliable than usual in this particular subject. There are many sources of fallacy. Before arriving at conclusions it is necessary to classify the tumours according to size and according to their position, both in regard to the various structures forming the uterine wall, and in regard to the pelvic brim. It is unreasonable to suppose that a fibroid tumour of moderate dimensions, which is situated above the level of the os internum, which is not pedunculated, on the one hand, and does not bulge the uterine mucous membrane, on the other, should cause any serious disturbance during pregnancy or labour. There must be very many cases happening every year in which such a tumour exists during pregnancy and labour without being discovered. On the other hand, it is unreasonable to expect a fibroid impacted in the pelvis to give no trouble during labour.

I think it is sufficiently near the truth for all practical purposes, and in accordance with the experience of most of those best able to judge, to affirm that in the great majority of instances in which fibro-myomata of the uterus and pregnancy co-exist the course of the pregnancy and of the subsequent labour is not seriously influenced by the tumour; but that in a small proportion of cases

* Quoted in 'American Text-book of Obstetrics,' edited by Norris, Philadelphia, 1895.

the patient's life and the life of the child are seriously endangered.

There are many ways in which a fibroid may dangerously complicate *pregnancy*.

1. There may be such rapid increase in the size of the tumour that the patient is subjected to the greatest distress.* The movements of the diaphragm may be seriously hampered and the nutrition of the patient dangerously affected. In three of the cases which I have to report emaciation was a marked symptom.† This rapid increase in size undoubtedly favours the occurrence of albuminuria.

2. The tumour may become incarcerated in the pelvis, and so give rise to special pressure symptoms.‡

3. If the tumour is between the uterus and bladder it may cause serious pressure on the bladder.§

4. The tumour may undergo degeneration through diminished nutrition. This may be caused by the twisting of its pedicle or by the thinning of the capsule over one portion of the tumour. As a result of this interference with nutrition an acute or chronic peritonitis may be set up.‖ There may even be suppuration of the fibroid.

5. There is at least one case on record in which the tumours caused excessive rotation of the pregnant uterus and consequent extreme passive congestion.¶

6. Pregnancy may be prematurely interrupted either as a result of great pressure, of incarceration, or of submucous development of the fibroid causing hæmorrhage or placenta prævia.**

* See Cullingworth, 'Lancet,' 1894, and Benckiser, 'Münch. med. Wochenschr.,' 1899; and Cases 1, 3, and 4 in this paper.

† See also Jewett, 'Amer. Gyn. and Obst. Journ.,' vol. xi, and Rumpf, in same volume.

‡ See Benckiser, loc. cit., and Bland-Sutton, 'Lancet,' 1901.

§ See Biermer, 'Centralb. f. Gyn.,' 1897.

‖ See Walter, 'Brit. Med. Journ.,' 1882, and Tull, 'Amer. Gyn. and Obst. Journ.,' vol. xv.

¶ Ludwig, 'Centralbl. f. Gyn.,' 1899.

** Varmier, 'Ann. de Gyn. et d'Obst.,' vol. xlvii.

Fibroid tumours may dangerously influence the course of *abortion or labour* in the following ways:

1. They may obstruct the passage of the embryo or fœtus.

2. They may lead to malpresentations.

3. They may lead to retention of the placenta or membranes.* (This applies especially to cases of abortion.)

4. If the tumour is submucous it may be extruded by the labour pains,† and may even cause acute inversion of the uterus in the third stage.

During *the puerperium* the presence of a uterine fibroid may be a predisposing cause to septic infection. There is greater liability to retention of blood-clots and lochial discharge; there is risk of bruising of the tumour during labour, and there is a danger that the rapid alteration in the blood-supply to the tumour during involution of the uterus may cause its vitality to be lowered.‡

Instances of all of these complications of pregnancy, labour, and the puerperium may be found recorded. It is true that some of them are very rare, and that others may be prevented with care, or may be successfully treated, but still the risks do exist.

Treatment of Pregnancy and Labour complicated by Fibroid Tumours.

If we now turn to the treatment of pregnancy and labour complicated with fibroids we shall find that there are many courses which are open to us.

From the point of view of treatment, we may classify in the first instance all cases as belonging to one or other of two main groups:

(1) Those in which pregnancy is allowed to take its course until full time or until the child is viable, and (2)

* See Case 2 in this paper; also Keiffer, 'L'Obstétrique,' 1897.

† See Bland-Sutton, loc. cit.

‡ Bland-Sutton, loc. cit.

those in which it is necessary to interfere in the earlier months.

Treatment in the later months.—By far the larger number of cases come under the first category. It is not only fibroid tumours of moderate dimensions and favourable situation which cause little disturbance to the course of pregnancy and labour. In many cases where the tumour is fairly large, and in some cases where it dips below the pelvic brim, the condition of the patient during pregnancy is little affected, and after the onset of labour it is not an uncommon experience for the condition of affairs to alter, so that a fibroid which threatened to seriously interfere with the safe passage of the child rises above the pelvic brim Dr. Cullingworth has recorded some interesting cases of this kind.*

The principle on which treatment must be conducted is undoubtedly to leave matters alone so long as the mother's life is not seriously endangered. A certain risk may even be run in order to give the child a better chance; thus it may be advisable in some cases of pregnancy about the seventh month to postpone interference for some weeks, even if the mother's health is suffering, provided we exercise a careful supervision. In cases which are near term, and in which the tumour is located in the pelvis, the question arises as to whether we should wait and see what nature will effect, or whether Cæsarean section should be undertaken without waiting for the onset of the pains. This is a question which can only be settled in each individual case. There are some cases in which, owing to incarceration of the tumour or to its intra-ligamentous development, it would be quite futile to expect the child to be born alive by the natural passages; while there are others in which there seems every prospect that the child will be born without serious difficulty. Should it appear probable that much force will have to be employed to push the tumour out of the pelvis, or by means of forceps to bring the child's head through a pelvis en-

* 'St. Thomas's Hospital Reports,' 1899.

croached on by a fibroid tumour, then I believe that Cæsarean section is the safest plan both for mother and child.

The following case is one in which the expectant treatment was carried up to a point beyond which, in my opinion, it would have been unsafe to go.

Case 1 (from notes taken by Dr. Ross, House Surgeon to St. Mary's Hospital, Manchester).—"E. W—, aged 43, married twelve months, was sent to me in July, 1900, by Dr. Knaggs, of Scarborough. Menstruation had always been regular until the 8th June, but she had seen nothing since that date. In July there was rapid enlargement of the abdomen. When I saw her the uterus was very irregular, and reached about two inches above the umbilicus. A diagnosis of pregnancy and fibroid was made, but as the condition of the patient was fairly good she was advised to wait. I saw her at intervals during the winter, and she was admitted to St. Mary's Hospital, Manchester, on February 4th, 1901. She was then much emaciated and very anæmic; there was marked œdema of feet and ankles; the urine, which was not diminished in quantity, contained one eighth albumen; the excretion of urea was much below normal. There was great distress from the size of the uterus; the patient had to be propped up to enable her to breathe. The uterus reached to the ensiform cartilage, and the fœtal head was felt moveable above the brim. On vaginal examination the cervix was found high up; behind and below it and to the right was a hard, rounded swelling, the size of a man's fist, which lay below the pelvic brim and was quite immoveable. The patient was kept under observation for nine days, during which she was treated by diet and medicine for the albuminuria without any benefit. As she was rapidly growing worse it was decided to operate. On February 13th, during complete anæsthesia, a careful examination was made to ascertain whether delivery by the natural passages was feasible, but as this seemed impossible Cæsarean section was performed. There was a consider-

able amount of fluid in the peritoneal cavity. The anterior wall of the uterus contained several fibroid tumours. A coronal incision was made into the uterus and the child extracted. The uterus was then removed by supra-vaginal amputation (intra-peritoneal) below the level of the fibroid in the pelvis.

"The patient made an uninterrupted recovery. The amount of albumen in the urine rapidly diminished, until on February 22nd it entirely disappeared. The child was a healthy male, and weighed eight pounds. Mother and child were in good condition when they left the hospital on March 9th."

In cases in which the child is viable but has not reached maturity, and where the health of the mother is so rapidly deteriorating as to make further delay dangerous, the advisability of the induction of premature labour may arise for consideration. If in such a case the pelvic cavity is occupied by the tumour to an extent which makes it probable that there will be even a moderate difficulty in the extraction of the child, I believe that premature labour is contra-indicated. The risk to the child is much greater, and the risk to the mother hardly less than the performance of Cæsarean section.

When Cæsarean section has to be performed, as a general rule it should be followed by hysterectomy. The presence of a fibroid renders the risks of the conservative operation greater, while at the same time it affords a distinct indication for the removal of the uterus.

Treatment in the earlier months.—In the second of the two main groups, namely, those in which it is necessary to interfere in the earlier months, we have a choice of three methods: (1) induction of abortion; (2) removal of the pregnant uterus and tumour together by abdominal hysterectomy; and (3) removal of the tumour alone.

1. *Induction of abortion* is a method which used to be frequently adopted, and it is still advocated in most of the obstetric text-books. At the time when all abdominal operations, and particularly hysterectomy, were attended

by a very high mortality, such advice was no doubt the best; but now that the results of operations on fibroid tumours have so much improved, I think it is time that our former rules for treatment were revised. The induction of abortion in cases of pregnancy so seriously complicated with fibroid tumour as to render any interference necessary, is a procedure not by any means free from danger. In such cases the growth is generally situated so as to block the pelvis, and on that very account the cervix is generally difficult to reach, and the uterine cavity is twisted and deflected. It often happens in such cases that the uterus is surrounded by a mass of irregular fibroids. Such a condition of affairs renders the patient particularly liable to suffer from retention of the placenta, or decidua, and prevents the free escape of blood and lochial discharge. The risk of primary septic infection is considerable, and the risk of a more chronic infection, leading to degenerative changes in the tumour or chronic septic changes in the tubes, is still greater. A case of this kind came under my notice in which, in spite of the most scrupulous care and most advantageous circumstances, the patient narrowly escaped an acute septic infection.

Case 2 (from notes taken by Dr. Ross).—"I was asked by Dr. Simcock, of Heaton Chapel, in May, 1899, to see A. T—, aged 33, on account of a rapidly increasing abdominal swelling. She had been married a few months, and at the time of my visit she had 'missed' two months. There was no difficulty in diagnosing a fibroid tumour, but there was a doubt as to pregnancy. She was admitted to St. Mary's Hospital on June 12th, 1899, the last menstrual period having occurred on the 14th of March. On examination a hard, tender mass was felt in the abdomen, reaching one inch above the umbilicus. On vaginal examination the cervix was felt high up in front, while the cavity of the pelvis was filled by a somewhat softer swelling. The patient had complained of pain for a week before admission, and on the day of

admission she commenced to have hæmorrhage from the vagina. Later in the day the cervix was found to be dilated to the size of half-a-crown. The patient was thoroughly disinfected in the usual manner. A three months' embryo was extruded in a few hours, but the placenta was retained. Under ether, and with careful aseptic precautions, the cervix was pulled down as far as possible by means of a vulsellum, and the placenta was removed by forceps and curette. The uterine cavity and vagina were irrigated with sterilised saline solution and packed with sterilised gauze. The temperature next day ran up to 101°, and the pulse was 138. On June 14th, owing to the increase of septic symptoms, the patient was again anæsthetised, and the uterine cavity again washed out. The temperature and pulse continued high for some weeks, but with repeated irrigation her condition gradually improved, and she was discharged from hospital on July 22nd, or six weeks from the date of admission.

"The patient returned for further operation on November 20th, when a large myoma was enucleated from the anterior uterine wall and the resulting cavity stitched up. The patient made an excellent recovery and is now in good health, but has not since become pregnant."

A further objection to the induction of abortion is that even if the patient should escape the risks from sepsis she is still left with a tumour for which an operation may be ultimately necessary.

2. *Abdominal hysterectomy.*—Removal of the tumour and the pregnant uterus by abdominal hysterectomy is sometimes advisable in the early months of pregnancy. The operation is in no way complicated by the existence of early pregnancy,—in fact, the technique is, as a rule, more simple than hysterectomy for fibroid tumour alone; the peritoneum is loosened and is more easily stripped from the uterus, the broad ligaments are elongated, and the vessels which supply the uterus, being well developed, are more easily seen and secured. I have on three occasions performed this operation. In all of the three

cases the conditions were such as to render immediate interference imperative. In two there was very rapid growth, great abdominal distension, severe abdominal pain, and emaciation. In the third case there was impaction of the tumour in the pouch of Douglas, causing interference with the emptying of the bladder and severe pain.

Case 3 (from notes taken by Dr. Walls, formerly house surgeon).—"M. G—, aged 34, was sent to me in September, 1893, by Mr. C. E. Richmond, of Manchester. She had been married six months, had no previous pregnancy, and her last period was in the end of May. Early in June she noticed that the abdomen was becoming distended, and discovered a hard swelling there. This swelling increased rapidly, and she began to suffer severe abdominal pain. She was admitted to St. Mary's Hospital, Manchester.

On examination the patient was found very emaciated; the abdomen was enormously distended, so that respiration was seriously interfered with. A hard tumour was found reaching from the pubes to within two inches of the ensiform cartilage. The lower portion was rather softer in consistence, and on auscultation a well-marked souffle could be heard. The cervix was felt high up above the pubes, and the cavity of the pelvis was almost entirely filled by a hard spherical mass, which was firmly fixed. On the 29th September abdominal section was performed. A large incision was made and the uterus was drawn out and covered with hot towels, the broad ligaments were tied in sections, the uterus amputated below the level of the internal os, and the stump of cervix covered in with peritoneum. The abdomen was flushed and a glass drainage-tube inserted. The patient made a good recovery, but her convalescence was somewhat retarded by a sero-purulent discharge from the lower angle of the wound. She went home on November 2nd, 1893.

"On examining the specimen, it was found to consist of large fibroid masses springing from the anterior and posterior walls of the uterus. The uterine cavity was high

up and was almost entirely surrounded by fibroids; it contained a four months' fœtus."

Case 4 (from notes taken by Dr. Ross).—"E. W—, aged 34, was sent to me by Dr. Hardman, of Cheadle Hulme, Cheshire, on account of rapidly increasing distension of the abdomen. She had been married sixteen months, had no previous pregnancy, and was last unwell in October, 1899. She was admitted to St. Mary's Hospital in April, 1900. Like the previous patient, she had not noticed anything abnormal until about two months before I saw her. At that time, however, she discovered a lump which had been increasing with great rapidity. She complained of much pain, and had rapidly lost flesh. On examination, a very irregular hard tumour was found to be occupying the greater part of the abdomen, the upper level reaching to within three inches of the ensiform cartilage. On vaginal examination the cervix could just be reached and was high up in front, the greater part of the pelvis was occupied by a hard and nodular mass. Pregnancy with fibroid tumours was diagnosed. On April 11th, 1900, the abdomen was opened and the whole mass removed by abdominal hysterectomy. The method followed was exactly as in the previous case, but the abdomen was not flushed and no drainage was employed. The patient made an uninterrupted recovery, and was discharged from hospital on May 5th.

"The specimen was not carefully examined until it had been hardened in formalin; the uterine cavity was then opened, and it was found to contain a four months' fœtus. The cavity was surrounded by fibroid masses."

Case 5 (from notes taken by Dr. Ross).—"S. A. T—, aged 41, was admitted to St. Mary's Hospital on account of difficulty and pain in micturition. For three weeks previous to admission she had suffered from pain, for which she consulted her medical man, who sent her to the hospital. She had had ten previous pregnancies, all terminat-

ing in natural labour, the last being two years ago. Menstruation had been absent for four months. On examination the abdominal swelling, which seemed fluctuant on palpation, was found to reach to the level of the umbilicus. On vaginal examination the cervix was found high up in front, the pouch of Douglas was occupied by a large, firm, rounded swelling the size of a large orange. The case at first was thought to be one of retroversion of the gravid uterus, but on examination under an anæsthetic it was decided that the abdominal mass was a pregnant uterus, and that the swelling in the pouch of Douglas was a tumour, probably fibroid. It was found impossible to push this tumour above the brim. After this examination the patient was kept under observation for some days, but she still had a good deal of pain, and as her general condition was far from well, it was decided to perform abdominal section. On December 1st, 1900, the abdomen was opened. The body of the uterus was found in front distinct from the fibroid growth, which seemed to spring from the supra-vaginal cervix, and was covered with peritoneum from the left broad ligament. The peritoneum and capsule of the tumour were incised, and the tumour itself was enucleated. The bleeding caused by this procedure was so free that removal of the whole uterus seemed the only safe course. This was accordingly done by intra-peritoneal hysterectomy, just as in the former case. The patient's convalescence was retarded by an attack of bronchitis (from which she suffered each winter) which had begun before admission. She was discharged in good health on January 5th, 1901.

"The uterus contained a four months' fœtus."

In this last case it was hoped that it would be found feasible to remove the tumour and to leave the pregnant uterus. The tumour, however, arose from a portion of the uterus where the wall was comparatively thin, and where the blood-supply was particularly active, and in consequence the tissue which intervened between the base of the tumour and the uterine cavity was very thin and the

hæmorrhage was profuse. It was therefore thought safest to remove the whole uterus.

3. *Myomectomy.*—The third method of dealing with these cases is to remove the fibroid and leave the pregnancy in the hope that abortion or premature labour will not occur. The following are the notes from a case in which this plan was adopted.

Case 6 (from notes taken by Dr. Ross).—"E. T—, aged 31, was sent to me by Dr. Laslett, of Farnworth. She had been married three years, and had no children. She was admitted to St. Mary's Hospital, Manchester, and gave the following history:—Her last menstrual period was twelve weeks before admission, and she had been previously regular. Four years ago she had suffered from a good deal of abdominal pain, but she had been fairly well since then until six weeks before admission. From that time she complained of great pain and discomfort from rapidly increasing enlargement of the abdomen. She had a great deal of sickness, and there was considerable emaciation. On examination of the abdomen two swellings were found. The upper one reached from two inches below the ensiform cartilage to about three inches above the symphysis pubis. It was very hard and somewhat tender, and its upper portion was very irregular. The lower tumour arose from the pelvis and extended to the lower margin of the upper mass, from which it seemed separated by a shallow groove. On vaginal examination the cervix was elongated and fairly low down. The body of the uterus seemed to lie mostly in the pouch of Douglas. The diagnosis was pregnancy complicated by abdominal tumour. As the patient's condition was getting rapidly worse it was decided to operate, although there was no obstruction in the pelvis. Abdominal section was performed on January 16th, 1901. On opening the abdomen a quantity of ascitic fluid escaped. A large fibroid tumour was found growing from the fundus and anterior wall of the uterus, which was pushed downwards and backwards. The upper part of the tumour was very irregular and hard and of a patchy greyish colour,

offering a marked contrast to the lower portion, which was smooth and red. There was a distinct constriction between the two portions of the mass, which seemed to be formed by the capsule of the tumour. The upper part of the tumour had apparently burst through the capsule and was only covered by peritoneum. The lower portion of the tumour was embedded by a broad base in the uterine tissue. A circular incision was made through the capsule of the tumour at its lower part, and the whole tumour was enucleated, leaving a large bleeding surface about the size of a saucer on the uterus. The uterine wall at this portion seemed to be fairly thick. The raw surface was sewn up in stages with silk sutures, a large number of sutures being employed, and finally the peritoneum was stitched over the whole. The abdomen was closed without drainage. For two days after the operation the patient's pulse was rapid and there was some vomiting, but after that improvement was steady. She went home on February 9th, having shown no signs of threatened abortion. I have since heard from Dr. Laslett, who tells me that the pregnancy is going on smoothly. She is to return to the hospital for her confinement."

I was encouraged to perform myomectomy on this case by having watched, a week or two previously, my colleague, Dr. Walls, remove in a similar way a sessile fibroid from a pregnant uterus. The immediate result was successful, and the pregnancy was not interrupted.

In comparison with the other two courses for dealing with the complication of fibroids in the early months of pregnancy in which interference is called for, there is no doubt that this last method is the one which should be adopted if this can be done without greatly increasing the risk to the mother.

As regards the risk to the mother, much, of course, will depend upon the nature of the case. When the tumour is subserous and has a well-defined pedicle the risk of operation is no greater than that of ovariotomy during pregnancy. In every case in which a tumour of this kind is

diagnosed during pregnancy, operation should be undertaken without delay. When the tumour is sessile it may still be removed with comparative safety, provided that the raw surface left after its enucleation is not very extensive, and that it is not so deep as to closely approach the uterine cavity. This can only be ascertained after removal of the tumour, and then hysterectomy may seem the only safe plan. We may also have to resort to hysterectomy if we cannot check the bleeding by the sutures which close the wound in the uterus.

The risk of abortion is also in proportion to the extent to which the tumour is implanted in the uterine wall, but there is always a chance that pregnancy will go on to term and the child thus be saved, and this fact is a sufficient justification of the operation. As to the conditions which favour the occurrence of abortion, I have a strong belief that as a rule it is due to tying the pedicle or stitching up the bed of the tumour in such a way that much tension is thrown on the muscular wall of the uterus. It is important, I think, to take care to avoid this tension. When the tumour has a pedicle this should be divided in a V-shaped manner as far from the uterus as possible, and the cut edges brought together with numerous sutures like the flaps of an amputation wound. When the tumour has been enucleated its bed should be obliterated by stage suturing, taking care to include only shallow layers of tissue in each row of stitches.

On referring to the literature of the subject I have been able to find quite a large number of cases in which myomectomy has been performed during pregnancy.* Many of these are cases of removal of pedunculated tumours, but there is also a fair number of cases of enucleation. The list is now such a large one that it would be difficult to give it completely. During the last few

* Apfelstedt (loc. cit.) in 1895 gives a list of thirty-one cases. There are others quoted by Bland-Sutton, and many more can be found scattered in the various journals.

years cases of this sort have been not very uncommon on the Continent, in America, and in this country.

Any conclusions as to the risk of operation which might be arrived at from a comparison of cases would probably not be correct. The results both of hysterectomy and myomectomy have improved so greatly during the last few years that only a comparison of recent cases would be of any use, and these are hardly sufficiently numerous. But I can see no reason for believing that the risks of myomectomy or of hysterectomy during pregnancy are more serious than the risks of these operations without the complication of pregnancy.

I may sum up my conclusions as follows.

1. In the great majority of instances in which fibromyomata of the uterus and pregnancy co-exist, the course of the pregnancy and of the subsequent labour is not seriously influenced by the tumour; but in a small proportion of cases the patient's life and the life of the child are seriously endangered.

2. When pregnancy is found to be complicated by fibroid tumour it is best to allow the pregnancy to go to term, as long as the mother's health is not seriously endangered.

3. If at the onset of labour, or shortly before, it seems certain that the tumour will cause obstruction to the birth of the child, Cæsarean section, followed by hysterectomy, should be performed.

4. In cases in which the health of the mother makes it necessary to interfere in the earlier months, abdominal section should be performed and an attempt made to enucleate the tumour.

5. If under these circumstances myomectomy is found to be too dangerous, hysterectomy should be performed.

Mr. Alban Doran exhibited his specimen of pregnant fibroid uterus at the fifth month (see p. 178), as illustrating several subjects of interest on which Dr. Donald had dwelt. Fibroids in the fundus interfered little with labour, and seldom demanded

operative interference during pregnancy. In his case an attempt to push the incarcerated fibroid out of the pelvis would have been very dangerous, as the soft uterus would have been squeezed between the two hard growths, and would probably have ruptured in consequence.

Dr. William Duncan congratulated the Society on having such an able paper on such an important subject read before it. He could not agree with the author that pregnancy and labour are only seriously influenced in a small proportion of cases by the presence of fibroids. He mentioned cases in his own practice in which he had met with serious obstruction in the pelvis even after abortion had been induced, also rupture of the uterus during pregnancy with fatal result, and he had a case some years back under his care in the Middlesex Hospital where the patient, the subject of fibroids complicating pregnancy, was waiting until full-term had arrived in order that he might perform Cæsarean section, but died of cerebral apoplexy whilst resting quietly in bed. With regard to subperitoneal fibroids he could not agree with Dr. Donald that "in all cases they should be removed during pregnancy;" quite the reverse, indeed, as unless a fibroid of this kind were impacted in the pelvis it should be left severely alone, and the pregnancy and labour would proceed quite naturally. He mentioned a case of this kind which had recently been under his care. With regard to interstitial or submucous fibroids, the nearer the cervix they were situated the greater the danger, and in these cases he thought the best interests of the mother were provided for by emptying the uterus if the pregnancy were in quite the early months; but in the late months, unless there were pelvic obstruction, he would be disposed to let the case alone. If, however, the tumour obstructed delivery it was far better to perform Cæsarean section and then remove the uterus and the tumour (or tumours) it contained than to attempt delivery by craniotomy.

Dr. Herman said that many valuable papers had been written on pregnancy with fibroids, but some of the best of them were now out of date, owing to recent advances in abdominal surgery, and therefore Dr. Donald was fully justified in asking for reconsideration of the subject. His paper was the first in which the many questions that arose in connection with pregnancy with fibroids had been adequately treated in the light of modern surgery. In all his main points he (Dr. Herman) agreed with Dr. Donald. He only ventured to differ from him in a few minor ones; he was not convinced of the effect of fibroids in causing abortion. Dr. Donald had quoted the opinion of authors who had not found abortion frequent with fibroids. He had also quoted figures supposed to show that abortion was frequent; those of Kelly who put the fre-

quency at 25 per cent., and of Lefour, which came to about 20 per cent.; but 20 per cent. was about the proportion of abortions to labours at term throughout the population generally. That fibroids often caused premature labour he thought was beyond doubt. The danger of pregnancy with fibroids depended more upon the situation of the growth than upon anything else. Fibroids situated above the lower segment of the uterus, unless very large, commonly caused no trouble in pregnancy or labour. He agreed with the preceding speaker, that it was not necessary to remove every small subperitoneal fibroid that co-existed with pregnancy. He hoped Dr. Duncan would publish a full account of the extraordinary case he had related, in which a pregnant uterus with fibroids ruptured although the patient was not in labour. He (Dr. Herman) only knew of one such case on record. Most of the cases reported as spontaneous rupture of the uterus during pregnancy were either cases of rupture during labour or of interstitial pregnancy. If a fibroid or fibroids were situated in the lower segment of the uterus, delivery might be obstructed by them. In such cases he (Dr. Herman) thought the essential condition for the best treatment was to decide before labour, or quite early in labour, whether or not the tumour obstructed delivery, and if it was judged that delivery would be obstructed to perform Cæsarean section or myomectomy, whichever seemed best, before the patient had been exhausted by prolonged labour. In deciding between myomectomy and hysterectomy, he thought that the age of the patient was a factor to be taken into account. In a patient so old that further pregnancy was not likely, hysterectomy was to be preferred, as being safer than myomectomy. To try to drag a child past a fibroid offering much obstruction to its passage, or to use great force to try to push a fibroid out of the pelvis, he regarded as bad practice.

Dr. Briggs, who considered that uterine fibroids in pregnancy rarely required operative treatment, maintained that radical abdominal operations during gestation, even if always successful, must not replace vaginal enucleation of submucous fibroids after the artificial or spontaneous termination of the pregnancy.

Mr. Bland-Sutton remarked that this was the first occasion on which the surgical treatment of fibroids complicating pregnancy had been definitely brought before the Society, and he regarded the description of the cases which had occurred in Dr. Donald's practice as a valuable contribution to our knowledge of the question. Mr. Bland-Sutton had recently published his own experience on the subject in a lecture in the 'Lancet' (Feb. 9th, 16th, and 23rd, 1901), but there were some points to which he would like to draw attention. It was very important to realise that in many instances in which hysterectomy had been performed in the early months of pregnancy complicated by

fibroids, the operation had been undertaken on the ground that the fibroids had recently undergone a marked increase in volume, or to employ the patient's expression, were "growing quickly." When the uterus was removed the operator found to his astonishment, and sometimes to his chagrin, that the supposed rapid growth was due to the occurrence of pregnancy. He knew that this had happened to obstetric physicians, as well as to surgeons who did not practise midwifery; therefore, in drawing up tables of hysterectomy performed for fibroids complicating pregnancy, it was very necessary to keep this fact clearly in mind. Next to pregnancy it seemed probable that "fibroids" was one of the common conditions to which a woman's uterus was liable, and it was equally certain that fibroids and pregnancy often co-existed, and the two conditions had no baneful effect upon each other. It was also equally certain that occasionally the co-existence of fibroids and pregnancy was fraught with very great danger to the life of the mother, and the treatment of these cases had often been a matter of the gravest concern to those who undertook to superintend her delivery. These matters had been carefully discussed in Dr. Donald's paper, and in an impartial and practical manner. The part of the paper which most interested Mr. Bland-Sutton was that relating to the treatment of subserous fibroids. In a few rare instances it happened that one of these tumours would prevent the gravid uterus from rising out of the pelvis, or interfere with the bladder, or even adhere to a coil of bowel. In one remarkable case of this sort a woman had experienced three abortions, and was pregnant for the fourth time. It was discovered that the probable cause of the abortion was a sessile subserous fibroid, which became impacted under the brim of the pelvis and led to impaction of the uterus. Cœliotomy was performed and the pregnancy went to term. The labour was satisfactory in every way, but the disappointment was great when it was discovered that the child was the victim of an imperforate pharynx. There was also another depressing feature in the case. When Mr. Bland-Sutton enucleated the fibroid at the fourth month of pregnancy he carefully examined the uterus, but failed to detect any more tumours. Five months later, when the patient was delivered, the doctor who had charge of the patient reported that the uterus was tuberose with fibroids, and ten days later Mr. Bland-Sutton saw the patient and satisfied himself that this view was unfortunately true. The ideal which every conservative operator who had devoted any attention to the surgical treatment of fibroids had set himself, was the enucleation of fibroids with preservation of the uterus; but it was quite certain that abdominal enucleation of fibroids, whether from the gravid or the unimpregnated uterus, could only be hopefully undertaken in a very small proportion of cases, because

there was the great liability of other seedling fibroids to assume activity and grow into very formidable tumours. Very few cases had so far been reported, and examples of subserous fibroids requiring such treatment were excessively infrequent, and in the few cases which Mr. Bland-Sutton had been able to collect, in the majority the operations had been undertaken on an erroneous diagnosis (*vide* 'Lancet,' 1901, vol. i, p. 454). These cases, however, furnished interesting food for reflection. Thirty years (1870) ago Spencer Wells somewhat fluttered the Society by relating successful cases of unilateral ovariotomy during pregnancy, and pointed out its justifiability. Seven years (1877) later he proved it. Some ten years later the Society was further startled by the announcement that bilateral ovariotomy could be performed when the uterus was gravid and without harmful effects on mother or child, and in 1891 Mr. Bland-Sutton was able to furnish a table containing references to six instances of successful operations in such circumstances. In 1901 the Society ceased to be astonished when it had to realise that subserous fibroids weighing as much as three pounds could be enucleated from the walls of a gravid uterus without interfering with the pregnancy, the mother going safely through her confinement and becoming possessed of a healthy, vigorous child. Surely this might be regarded as a triumph of modern surgery.

Dr. Lewers said that when a fibroid tumour complicated pregnancy much depended on the exact situation of the tumour. In cases like that exemplified by Mr. Doran's specimen, where the tumour was situated low down, it offered an insuperable obstacle to the passage of the child, and necessitated Cæsarean section. In cases also where a patient, already the subject of a large uterine fibroid, became pregnant, even though the fibroid was situated in the upper part of the uterus, abdominal hysterectomy might be needed in the early months on account of the distress caused by the extra enlargement of the uterus consequent on the pregnancy. Such cases were, however, in his experience quite exceptional. He had seen a considerable number of cases of pregnancy complicated by fibroid tumours in which the patient passed through pregnancy, labour, and the puerperium quite normally. In Dr. Lewers's opinion it would be a pity if the impression were to become general, as a result partly of some statements in Dr. Donald's paper, and partly as a result of the remarks made by some of those who had already spoken on it, that when fibroid tumours complicated pregnancy, abdominal hysterectomy (or myomectomy) was generally required.

Dr. Herbert Spencer agreed with most of the recommendations in the paper; he was especially glad to hear that the author condemned the induction of abortion. In cases where

fibroids occupied the cervix or lower segment of the uterus that operation was very dangerous, owing to the rigidity of the tissues and the difficulty or impossibility of completely emptying the uterus. Though he had never performed the operation himself, he had known it terminate fatally in skilful hands when every precaution was adopted, and he thought the operation should not be performed. He agreed with Dr. Lewers in advocating a more conservative treatment of many of these cases. Fibroids implicating pregnancy were fairly common. At University College Hospital, where about 2500 cases of labour were attended annually, he had in fourteen years seen a considerable number of cases of pregnancy and labour complicated with fibroid tumours, which were in several cases of very large size; but he had never met with a death from the complication, and had only once (in a case in which the cervix and lower segment were occupied by the tumour) had to perform Cæsarean section and remove the uterus, which weighed 6 lbs. He had seen cases in which it was expected that fibroids in the lower segment would interfere with the passage of the child, but when labour set in the tumours were drawn up out of the way, and delivery was safely effected. Dr. Spencer was of the opinion that hysterectomy in the early months of pregnancy was far too frequently performed. If some one would invent an *algiometer* (carefully compensated for the heated imagination of the operator) he was sure it would be found that the "severe pain" was greatly exaggerated by some of those who gave this as a reason for removing the fibroid uterus in the early months of pregnancy, and that the treatment of such pain by the usual medicinal remedies would permit a living child to be born either naturally or by operation. He thought the statement that all subperitoneal pedunculated fibroids ought to be removed during pregnancy was too absolute. And he wished (though this remark did not apply to the author's paper) to enter an emphatic protest against the removal on account of pain of small sessile corporeal fibroids by enucleation through the abdomen during pregnancy, an operation which was by no means free from immediate and remote risks, which sometimes necessitated hysterectomy on account of hæmorrhage, and which, while removing a growth which is usually harmless and would diminish after labour, probably left in the uterus growths which might require a subsequent radical operation.

Mr. Butler-Smythe quite agreed with the remarks made by Dr. Herbert Spencer, and was glad to join in the protest against indiscriminate operating. Personally he was much obliged to Dr. Donald for teaching him that large myomata could be safely removed from the pregnant uterus; but he could state that in his experience, which was a fair one so far as these cases were concerned, there were instances where living children were de-

livered without resorting to abdominal operations. He recognised the necessity for operating in the specimens shown, but thought there were many cases in which the fibroid might well be left alone.

The PRESIDENT quite disagreed with those who alleged that fibroid tumours of the uterus did not cause miscarriage. It is true that a woman might have fibroid and not miscarry. He had known a patient to be delivered of a full-term child whilst suffering from a subperitoneal fibroid as big as the pregnant uterus at full term. And, in fact, it was in the subperitoneal variety that miscarriages were not the rule. Also small fibroids might exist without causing miscarriage; but his own experience proved that where there was a fibroid tumour—of, say, the size of a cocoa-nut—in the wall of the uterus, it almost invariably caused miscarriage. Many such patients came with a history of repeated miscarriages, occurring generally at about the same period of gestation, namely the third or fourth month, as if at that time the further growth of the ovum was interfered with by the tumour, and hence the expulsion of the contents of the uterus. Many speakers had spoken of the induction of abortion, but apparently they made no distinction between abortion and miscarriage. Usually it had been understood that abortion referred to expulsion of the contents of a pregnant uterus any time during the first two or, according to some, the first three months of gestation. In courts of law it had become the custom to use the word abortion in a criminal sense only, and that seemed a useful practice. The term miscarriage and induction of miscarriage would then include expulsion of the uterine contents in pregnancy at any time before the viability of the fœtus, that is before the seventh month, the term induction of labour being used when the child was viable. Whilst it was true that with modern aseptic methods the mortality in hysterectomy had been greatly reduced, it was equally true that the mortality in induction of miscarriage had also been greatly reduced. Indeed, with aseptic methods puerperal septicæmia had been practically eliminated. Nevertheless, aseptic methods had not eliminated one danger in the induction of miscarriage for fibroids, and that was hæmorrhage. This danger was considerable because, even after the escape of the liquor amnii, it was often impossible, owing to the increased length of and tortuosity of the canal, to reach with the finger so as to peel off the whole of the placenta. Hence it was necessary either to leave it for the uterus to expel, which was frequently tedious, leading to both hæmorrhage and sapræmia, or it had to be drawn down by means of forceps piecemeal, causing considerable bleeding during the process. Very probably in every one of these cases described by Dr. Donald the operations he had performed so successfully were necessary because the tumours were large and caused great

obstruction. But he could not agree with the deduction that in early pregnancy with fibroids abdominal section should be performed in all cases. On the contrary, many cases, perhaps the majority, might well be left alone with a reasonable hope that all would go well. As in other diseases, each case must be judged on its own merits. He did not think pushing up a tumour in the pelvis obstructing labour was devoid of danger, and unless it was fairly easy to push it up into the abdomen out of the way, so as not to obstruct labour, he did not advocate that great force should be employed.

Dr. Donald, in reply, said that many of the criticisms which had been made were due to a misunderstanding as to the position he took up. Many of the speakers, including Dr. Duncan, Dr. Herman, and Dr. Spencer, had objected to his advocacy of the removal of pedunculated subserous fibroids during pregnancy. The kind of tumour which he had in mind in giving this advice was a hard fibroid of fair size, and with a pedicle sufficiently long and narrow to allow of considerable range of movement. The risk of removing such a tumour during pregnancy was no greater than that of ovariotomy during pregnancy. On the other hand there was great risk during pregnancy and labour, and the subsequent involution of the uterus of these tumours being rotated, so that their nutrition was interfered with. Dr. Herman thought that the work of previous investigators had been rather neglected. As a matter of fact the author had referred to most of the papers published within comparatively recent times which dealt with the subject, but the conclusions drawn from statistics by various authorities were so widely different that little reliance could be placed on them. The subject was not one in which statistics could give much help; each case had to be decided on its own merits. Some of the speakers found fault with the advice that the induction of abortion should be abandoned. The only kind of case in which the induction of abortion could be entertained was one in which the delivery of a mature fœtus was manifestly impossible, owing to the blocking of the pelvis by one or more fibroid tumours. In such a case the cervix was difficult to reach. The canal was generally elongated and tortuous, and in consequence there was great risk of retention of the placenta, membranes, and lochial discharge. In the author's opinion there was as much risk in this method of treatment as in an abdominal operation. Moreover, in any case where such conditions existed, the uterine cavity was safely emptied, a subsequent operation for the removal of the tumour would almost certainly be required.

JULY 3RD, 1901.

PETER HORROCKS, M.D., President, in the Chair.

Present—33 Fellows and 3 visitors.

Books were presented by the Johns Hopkins Hospital and the St. Thomas's Hospital Staffs and by Dr. Cullingworth.

Frederick James Purcell Daly, L.R.C.P., and Reginald Courtney Gayer, L.R.C.P., were admitted Fellows of the Society.

The following candidates were proposed for election :— Harry Meilor Weaver Bridgman, M.D. ; William Frederick Gardener, L.R.C.P.Lond.

The following gentlemen were elected Fellows of the Society :—Francis Rowland Humphreys, L.R.C.P.Lond. ; Francis Porteus Tyrrell Hilliard, M.A., M.B.Oxon. ; Robert Hamilton Bell, M.B., B.C.Cantab.

A CASE OF ENDOMETRITIS EXFOLIATIVA.

By Dr. CUTHBERT LOCKYER.

DR. CUTHBERT LOCKYER showed a menstrual membrane and also two decidual membranes, one of the latter being still *in utero,* the specimen having been obtained post

mortem from a patient who died of hæmorrhage from a ruptured tubal gestation in the early weeks of pregnancy. Microscopic sections of the three membranes were shown in order to compare the structural differences between the menstrual membrane and the decidual casts.

The clinical history of the case of the menstrual membrane was given as follows:

The patient was single, aged 19 years; she came to the Samaritan Hospital on December 11th, 1900, complaining of menorrhagia. She had been quite regular until June of the same year, when her period was excessive and continued for one month; six towels were used daily. This period ceased on July 20th, and the next started on August 12th, continuing until August 29th. The September and October periods were not so severe, but she lost heavily from November 9th until December 20th. Shreds were seen on each occasion; there was no dysmenorrhœa nor pelvic pain. The patient was very anæmic, and complained of constipation, but had no trouble with micturition. On examination nothing abnormal was found in the abdomen. *Per vaginam* the uterus was normal in size; a hard nodule was felt high up in the right fornix; this was not tender and moved with the uterus, to which it seemed attached at the right cornu.

On December 11th the patient was given an acid ergot mixture and told to lie up. This made no impression on the hæmorrhage; on the contrary, it rather increased. Increasing the ergot to 3j doses, the bleeding ceased for nine days, but began again, and on December 30th a complete cast was passed in two pieces. The passage of the cast caused pain, prior to which no pain had been felt.

The patient was admitted into hospital and curetted under an anæsthetic; some endometrium was removed and examined under the microscope. The hard swelling in the right fornix proved, under the anæsthetic, to be a cornual fibroid, and towards this the cavity of the uterus inclined by right lateriflexion. There was no sign of

gonorrhœal infection. The curetted endometrium when sectioned was shown to be fairly normal. There was no glandular hyperplasia, and it showed only a small amount of round-celled infiltration.

The sections of the menstrual membrane showed an extremely delicate tissue, consisting of a reticular stroma studded with shrunken polymorphic cells, also elementary blood-vessels in the shape of oval spaces limited by flattened endothelial cells and containing red blood-discs. Clear oval spaces were also seen lined by distinct and well-formed spheroidal cells, some assuming the goblet shape and refusing to stain with logwood; these spaces were regarded as elementary gland-tubules. Comparing this structure with the decidual casts it was at once seen that the latter were denser, the stroma being more fibrous and more cellular. Fully formed blood-vessels were found, and around them were grouped large nucleated connective-tissue cells (decidual cells); fully formed glandular ducts were to be seen.

Dr. Lockyer found by comparing the menstrual cast with sections of inflamed endometrium detected in connection with fibromyoma uteri that the stroma in the two cases was identical. He had no hesitation in regarding the specimen as an inflammatory product, for which he selected the term "endometritis exfoliativa." He remarked that it was noteworthy that whereas in other recorded cases a previous history of gonorrhœa was obtainable, in this case no sign of infection could be elicited, and the patient was most probably a virgo intacta.

Since the curetting there had been no recurrence of the trouble, the periods being normal and the patient healthy.

Mr. Alban Doran was interested in the resemblance which Dr. Lockyer noted between exfoliative endometritis and the change in the endometrium, so common in a uterus with myoma. In that disease there was no evidence that the ovaries underwent any change, either as cause or effect of the myoma or of the change in the endometrium.

The President thought this membrane was quite different

from that passed in so-called "membranous dysmenorrhœa." The latter was almost invariably associated with great pain, and not always with much hæmorrhage, and it was a comparatively rare affection. Possibly membranes, such as the one shown, might be passed much more frequently than was imagined amidst the menses in cases of menorrhagia.

CYSTIC CORPUS LUTEUM.

By Dr. Alcock.

Dr. Alcock showed microscopic slides of a case of cystic corpus luteum, which was removed some ten months after a first pregnancy complicated by a septic puerperium, and suggested a causal relationship.

Dr. Herbert Spencer inquired as to the colour of the wall of the cyst. In those he had seen the colour had been yellow. Small cysts of the corpus luteum, if not usual, were very common; but large ones, he thought, were rare. He had personally not met with one larger than a walnut. On the Continent the corpus luteum seemed to be regarded as a common source of unilocular ovarian cysts. The appearance of the wall on microscopic section was characteristic, and was well shown in the drawings of the specimen exhibited.

Mr. Alban Doran noted that puerperal abscess of the ovary was sometimes due to infection of a corpus luteum.

CARCINOMATOUS TUMOUR OF OVARY.

Shown by J. S. Fairbairn.

The tumour was removed by Mr. Bland-Sutton from a married woman, aged 25, in the Chelsea Hospital for Women.

The chief point of interest in the tumour is that the new growth is contained within a capsule of ovarian tissue, which forms a complete investment to it.

Description of tumour.—It is about the size of a fœtal head. Externally it is covered with a smooth, whitish capsule, and is quite free from adhesions. On section this capsule is seen to be about one eighth of an inch in thickness, though in places it is somewhat thicker, and under it may be recognised the remains of ovarian stroma containing a few small follicles. The main mass of the growth, forming the central part of the tumour, is soft, friable, and lobulated, of a yellow colour, and very similar in appearance to fat, but not greasy. When fresh there was a little effused blood in its meshes. The tube and mesosalpinx show no pathological change, and the mesosalpinx preserves its usual relation to the tumour. The ovarian fimbria runs down on to the surface of the growth.

Microscopical examination.—A section was taken of the capsule with the underlying growth, and also of a piece of the growth from the central portion. The microscope confirms the naked-eye examination. The capsule shows on its outer surface what is probably the remains of the columnar epithelium covering the ovary, though these cells are so broken up that it is difficult to speak with certainty about them. Below this is well-formed fibrous tissue, more cellular in its deeper planes, in which can be seen follicles with the remains of the membrana granulosa, and here and there patches of young fibrous tissue, evidently the remains of corpora lutea. Vessels with well-marked walls are also present. Altogether the structure quite conclusively shows that it is the remains of the ovarian stroma. The growth itself is epithelial, and may be seen invading the ovarian stroma. The cells of the growth are very irregular in size and arrangement; some of the cell spaces are lined by a well-defined "palisade" epithelium, and are filled with masses of proliferating cells: in other places the cells are arranged in a tubular or alveolar form. A section from the centre of the tumour shows large masses of cells irregularly grouped together, but with a tendency to an alveolar arrange-

ment. The way in which the growth has invaded the ovary and stretched out its tunica is very similar to what so commonly occurs in similar growths in the testicle, where the growth is confined by the tunica albuginea till it has attained considerable size.

The clinical history of the case is briefly as follows :— The patient sought advice on account of an almost continuous loss of blood for four months, and severe aching pain in the lower part of the abdomen. On examination a well-defined moveable tumour about the size of an orange was felt in the front of the uterus on the right side. At the operation the tumour was found to be a solid growth of the right ovary; the pedicle was twisted. The growth was removed, and ventrofixation done, as the uterus was lying back. There was no ascites; the state of the other ovary was not noted. The patient made a good recovery.

Dr. Arthur Giles said that the case possessed considerable clinical as well as pathological interest, especially from the point of view of diagnosis. He saw the patient at first in the out-patient department, and the history of hæmorrhage going on for some months without any very obvious cause, and of persistent pain in the right side, taken in conjunction with the presence of a well-defined swelling to the right of the uterus, led him to diagnose extra-uterine gestation; and this was the view generally taken when the patient was in the hospital. An element of doubt in the diagnosis was introduced by the mobility of the tumour; he had, however, seen exceptional cases where the tumour in a case of extra-uterine gestation was mobile, even though of a considerable size.

Mr. Alban Doran suspected that the twist of the pedicle might have been the cause of the menorrhagia. In malignant disease of the ovary, especially in a young subject, amenorrhœa was the rule, not menorrhagia. Metastatic deposits in the endometrium might cause menorrhagia, but they are unusual in malignant disease of the ovary. The source of the menorrhagia was, after all, uncertain in Dr. Fairbairn's case.

Dr. W. F. Victor Bonney suggested that chronic twisting of the pedicle might actually be a saving measure in these cases. The partial lymphatic obstruction would tend to prevent the transmission of the carcinomatous cells towards the broad ligament and lumbar glands.

The President considered true carcinoma of the ovary a very rare form of tumour. He asked what the condition of the corresponding Fallopian tube was, because the symptom of menorrhagia was common in all tube affections, and not at all common or usual in ovarian diseases.

In reply to the President Dr. Fairbairn stated that the condition of the Fallopian tube appeared perfectly normal to naked-eye examination, but no microscopic examination was made of it. With regard to what had been stated about the frequent absence of a history of amenorrhœa in cases of tubal gestation, that rarely depended on whether the patient was more than four weeks pregnant before the occurrence of hæmorrhage into the ovum. If this happened, or tubal abortion occurred before four weeks from the last period, a history of amenorrhœa could not be expected. As to Dr. Bonney's observations which had been made on the effect of twisting of the pedicle in preventing dissemination, the twisting was too slight to cause any marked venous congestion of the tumour or of the Fallopian tube, and could not therefore be expected to have much influence. The fact that the growth remained enclosed in the tunica of the ovary was a much more important factor.

TUBAL MOLE, SHOWING ESCAPE OF THE BODY OF THE EMBRYO THROUGH THE FIMBRIATED OPENING, WITH RETENTION OF THE HEAD AND AMNIOTIC CAVITY IN THE TUBE.

By J. S. Fairbairn.

This specimen was removed by Dr. Cullingworth on June 27th from a patient in St. Thomas's Hospital, a married woman of 30, who had had three children. The last normal period was on February 18th. Five weeks later (on March 25th) she began, as she thought, to menstruate again. The show lasted for three weeks, that is till the middle of April; then, after a clear interval of one week, this was followed by an acute attack of pain, so

severe that her doctor was sent for. He remarked her pallor, and showed the patient her face in a glass to call her attention to it. At his instruction she kept her bed for a week, but a few days after getting up the discharge returned, and continued off and on till admission. With the return of the discharge she had another acute attack of pain, and passed a substance which was supposed to be a miscarriage. She applied to the hospital on account of repeated attacks of pain, with nausea and vomiting. On examination in the hospital a hard mass was found in the abdomen, filling up the left iliac fossa and extending across the mid-line and halfway to the umbilicus.

A large swelling could be felt on vaginal examination, filling up the sacral hollow and depressing the vaginal roof. The uterus was in front, the cervix flattened and fixed, but not pushed against the pubes, and the fundus under the abdominal wall to the left of the mid-line, its summit being about three inches above the pubes. The swelling could not be separated from the uterus. It extended quite across the pelvis, and was larger and thicker on the right than on the left. She was kept under observation in the hospital for three or four weeks, and as the mass did not show any signs of absorption Dr. Cullingworth opened the abdomen. There was no free blood in the pelvis. The swelling was connected with the left appendages; its adhesions to the pelvic and abdominal walls, to the back of the uterus, to bowel and omentum, were in turn separated, and the mass brought up to the wound and ligatured. The ligature, however, cut through and the mass came away, so a fresh ligature was placed round the pedicle lower down and the vessels secured, the ovary being removed. The pelvis was then washed out and the abdomen closed.

The specimen consists of the left tube distended by a mole, together with a small hæmatocele, which has formed round the mouth of the tube. The whole measured 5 × 3 × 7 inches. The hæmatocele sac with its contained blood-clot was partially separated from the

rest during removal. At the spot where the sac has been detached the body of an embryo protrudes from the patent fimbriated end of the tube, which measures $\frac{1}{8} \times \frac{3}{8}$ inch. The fœtus measures 4 inches, and is caught by the neck in the opening, the head remaining in the amniotic cavity inside the tube. The wall of the tube covering the mole is somewhat torn and ragged, but can be traced from the fimbriated opening over it; the uterine end can also be made out, though it is not very distinct.

Dr. Cullingworth said that the main point of interest in the specimen was the evidence it afforded that tubal abortion might occur when the fœtus had attained a considerable size, and that the size of the after-coming head might cause its detention, just as it does in delivery *per vias naturales*. In this case the whole of the fœtus had escaped from the abdominal ostium of the tube except the head, which was just too large to pass. The patient had been under observation for about a month before operation. The fact was that, although the diagnosis of pelvic hæmatocele due to tubal gestation had been correctly made, the gestation was thought (on account of the first irregular hæmorrhage having occurred five weeks after the last period) to be less advanced than it proved to be. Hence it was decided to wait and see whether the mass would disappear by absorption. The patient was very well, and being in the hospital was within reach of immediate help if fresh symptoms arose. However, there being no sign of diminution in size at the end of a month, the patient was advised to undergo the operation. Had it been suspected that the fœtus was the size now seen, of course the operation would have been undertaken when the patient first came in.

Dr. Drummond Robinson asked Dr. Cullingworth whether he still considered that in cases of mole, both intra-uterine and extra-uterine, the blood was effused from the fœtus and not from the mother; and whether in the specimen under discussion he thought that the blood-clot, which was many times greater in bulk than the fœtus, had really come from the fœtus itself, and not from the wall of the Fallopian tube.

Dr. Cullingworth said that in this case, as in cases of tubal abortion generally, the primary source of the hæmorrhage was, in his opinion, the chorion, a fœtal membrane. At a later stage the presence of the hæmorrhagic ovum within the tube might no doubt act as a source of irritation, and provoke hæmorrhage from the mucous membrane of the tube itself.

The President thought that as there was a distinct fœtus the term tubal mole was inapplicable—incomplete tubal abor-

tion or miscarriage would be better. The question of operation was one of great importance. But he had no doubt whatever that many cases got well without operation, the blood becoming organised and gradually absorbed without giving rise to further trouble. It was his plan not to operate if there were evidences of death of the embryo, cessation of bleeding, and absence of all symptoms of sepsis. He did not think hæmorrhage from the uterus in these cases of extra-uterine fœtation proved the death of the fœtus, and increase in the size of the tumour to be felt did not necessarily imply that the fœtus was alive, for it might be due to further hæmorrhage. He gave details of such a case where he had advocated leaving the patient alone when she was seized with pain and collapse, and immediate operation revealed fresh bleeding, in an extra-uterine gestation when the embryo had been dead some time.

In reply to the President, Dr. Fairbairn said he had called the specimen a tubal mole because he looked upon the mass of blood-clot and membranes as constituting a mole, quite without reference to the presence or absence of an embryo. With regard to Dr. Drummond Robinson's problem as to the source of the hæmorrhage, he considered it very difficult to say where the fœtal structures began or the maternal ended, so as to account for the formation of the mole. However, the hæmorrhage probably began by fœtal bleeding into the membranes, and that might cause enough separation to open up the maternal sinuses, and so account for the large quantity of blood effused.

CARCINOMATOUS UTERUS REMOVED EIGHTEEN AND A HALF YEARS SUBSEQUENT TO DOUBLE OVARIOTOMY.

Shown by A. C. Butler-Smythe, F.R.C.S.E.

Mr. Butler-Smythe showed a carcinomatous uterus which he had removed in May, 1901, from a woman aged 52, on whom eighteen and a half years ago he had performed double ovariotomy; that is to say, he had removed a large multilocular ovarian tumour and a cystic ovary the size of an orange. Menstruation had ceased

immediately after that operation and had never recurred. The patient remained in perfect health up to the end of the year 1899, when she had two sudden and severe floodings. Vaginal hysterectomy was recommended but declined at the time, the patient preferring palliative treatment. In May, 1901, Mr. Butler-Smythe removed the uterus by the vaginal method, and the patient made an uninterrupted recovery. An interesting point in the case was the occurrence of a pyometra, accompanied by high temperature, which delayed the operation for a week. The specimen was examined by Mr. Targett, who pronounced the disease to be a columnar-celled carcinoma of the tubular variety, such as is called malignant adenoma. The whole length of the cervix was invaded, and there were secondary growths in the body of the uterus. Mr. Sampson Handley made special investigations on the vaginal portion of the cervix, but could find no evidence of malignancy in that part. The patient at the present time is in good condition, and is gaining flesh rapidly.

Dr. Tate had reported three cases of pyometra complicating cancer of the cervix to the Obstetrical Society in December, 1897. Since then he had met with three more cases. All of them occurred in women who had passed the menopause. The character of the pus was similar to that described in Mr. Butler-Smythe's case. Dr. Tate did not think there was any reason to think that the patient suffered from any septic absorption in these cases, and advised completion of the operation of vaginal hysterectomy, even though the offensive pus were discovered in the early stage of the operation.

Dr. Herbert Spencer said the interest of this specimen seemed to centre in the fact that cancer of the cervix had developed many years after the removal of both ovaries. Dr. Blacker ('Obst. Trans.,' vol. xxxvii, p. 213) and Dr. Playfair ('Obst. Trans.,' vol. xxxix, p. 288) had shown two similar specimens before the Society. These cases had a bearing upon the practice of removing the ovaries for the cure of inoperable cases of cancer of the breast and other parts. The uterus had also been known to develop sarcoma many years after the removal of both ovaries for fibro-myomata. The above facts were in favour of total hysterectomy and against oöphorectomy for fibroids.

Dr. Herman had seen a case in which cancer of the cervix occurred after double oöphorectomy. It was that of a nulliparous barmaid who suffered from dysmenorrhœa, so severe that she could not keep any situation owing to her being every month incapacitated for work. Her cervix had been dilated and incised with only trifling and temporary benefit. Therefore, in 1887, the patient being then aged 31, both ovaries were removed. Menstruation and the pain stopped, and the patient subsequently was married. In 1900 she again consulted Dr. Herman, who found cancer of the cervix, but as she did not follow the advice he gave her he was not able to show the specimen.

Mr. Alban Doran believed that cancer of the cervix was relatively very rare after removal of the ovaries. That disease was chiefly associated with fecundity and a high state of nutrition of the uterus. Removal of the ovaries must be followed by opposite conditions. Still, removal of the ovaries did not cut off the arterial supply of the cervix, as was shown by the unsuccessful results of oöphorectomy for fibroid when the myoma lay in the cervix. Hence Mr. Butler-Smythe's case could be understood; the cervix was not in a state of atrophy, which usually shields a structure from cancer.

Mr. Butler-Smythe said he had brought the case before the Society because he knew of no similar instance where cancer had occurred in the uterus after such a period (eighteen and a half years), and where the uterus had been removed and the patient's life saved. In his opinion this woman should not have developed cancer if removal of the ovaries had anything to do with the prevention or cure of that disease, whether in the breasts or uterus. With regard to the Prior's intra-uterine traction forceps which he had found so useful when operating, he strongly recommended the instrument in cases where the cervix was atrophied or destroyed by the disease, and also where the anterior vaginal wall and bladder prolapsed, rendering them liable to injury, where toothed forceps were employed. In answer to Dr. Tate, the age of his patient at the time of the ovariotomies was 33 years. He was glad to hear from Dr. Tate, who had great experience in vaginal hysterectomy, that pyometra need not delay removal of the uterus. He was pleased to know that Dr. Amand Routh thought well of the Prior's forceps, and he felt sure that when once tried it would be seen how useful the instrument really was.

ON SPONTANEOUS RUPTURE OF THE UTERUS IN PLACENTA PRÆVIA.

By J. Preston Maxwell, M.B., B.S., F.R.C.S.,
Changpoo, Amoy, China.

(Received May 22nd, 1901.)

Spontaneous rupture of the uterus in cases of placenta prævia is a by no means unknown occurrence; and yet, strange to say, it has received but little notice in the principal text-books. At this distance (South China) I cannot refer to a large library, but I never remember to have seen it mentioned; and as I know of three cases of this accident, one of which has just occurred in my own practice, I am sure that an account of the case will interest the members of this Society.

Of the other two cases I know but little. One ruptured during labour, and the patient died in a minute or two undelivered; one was found ruptured after labour, and recovered after having been desperately ill from hæmorrhage. In this case the rupture was posterior, and was packed. The details of my own case are as follows:

S—, a primipara, aged 23, had been in poor health during her pregnancy. Fortunately she was a more enlightened woman than the majority of Chinese women, and called me in when labour began. I found her with weak, poor pains, and the child was evidently at full term and the cervix dilating very poorly, especially posteriorly. There was a little more bleeding than usual,

and this, combined with the irregular dilatation of the os, which would admit two fingers, made me suspicious of placenta prævia. Examining with this suspicion, I thought that I could touch the edge of the placenta behind (and this subsequently proved to be correct). As she lived close by I decided to try and get her into a better condition by procuring some sleep, and to that end gave her a dose of chloral and bromide. She went to sleep, and when next visited, about twelve hours after, the cervix had closed up and admitted one finger with difficulty. This being the case I decided to wait till labour came on, and meanwhile fed her up. There was no further hæmorrhage, and at the end of fourteen days labour came on and the os dilated, but still it did not dilate well behind. When three-quarter dilated I intended to rupture the membranes and let the child, a small one, come down; and about this time I left the room for some two or three minutes, but returning I saw she was beginning to bleed badly, and at once ruptured the membranes, and the child's head coming down, placed my hand on the uterus and kept it there, but without in any way stimulating it. At the end of ten minutes the child was born without assistance. The moment it was out of the vagina blood simply pumped out, and I thought the woman was going to die on the spot. Turning her on to her back I quickly expressed the placenta, and with my hand on the abdomen pressed the uterus forcibly downwards and backwards (it was fairly well contracted). I administered a drachm of "ergole" by mouth, and ɱxv by a hypodermic injection. The bleeding, which had been checked by the pressure of the uterus downwards, came from a rent of the posterior wall of the uterus and the cervix, and the examining fingers could be passed directly into Douglas' pouch. Fortunately I had surgical gauze ready in biniodide of mercury lotion, and having wrung this out packed the rent with it, inserting my whole hand into the vagina to do this. The patient had by this time a pulse of about 150 (pulse before delivery 80), and was

pallid and inclined to be breathless. But she obeyed orders and kept perfectly still. The packing and pressure stopped the bleeding almost entirely, and I held on to the uterus for two hours, by which time she had begun to rally. At the end of twenty-four hours I removed the entire packing, setting up a little recurrent hæmorrhage, which soon spontaneously ceased. Cleanliness is so difficult to obtain in these Chinese homes that I never give a douche unless serious septic symptoms are present, even after such operations as cephalotripsy or removal of adherent placentæ ; and so far I have had no reason to regret it. In this case no douche was given throughout, and there were no symptoms of sepsis. At the end of fourteen days she was up and about, and at the present time, six months after the confinement, she is in perfect health, with a freely moveable uterus of normal size. Menstruation has returned as usual.

The child weighed 5 lbs. and was puny. At the end of three weeks it developed pneumonia owing to a chill, and died after two days' illness. The placenta was a placenta prævia marginata, and the rupture had occurred through the entire cervix and lower portion of the placental site.

It is well known that in cases of placenta prævia the wall of the uterus is not strong, and in some cases fatty degeneration of the uterine muscle has been discovered. What exactly sets up the rupture in these cases is difficult to tell. A severe pain, the patient aiding the same by bracing herself up, apparently is sufficient to start the rent, and once started it is apt to enlarge mechanically. In the foregoing case I attribute her recovery to the fact that one was able to press the uterus well down and so stop the bleeding, partially at all events. If I had not been with her at the time I have no doubt she would have died in a very few minutes.

As to the treatment, laparotomy and suture would have been extremely difficult and almost certainly fatal ; and I have the same view about introducing a speculum

and sewing up from the vagina. In a well-lighted theatre, with every appliance at hand, it might be the best practice; in a dirty Chinese home it is out of the question.

Dr. CHAMPNEYS said that he had little but commendation to offer on the subject of the very interesting paper. The case was remarkable in several ways: the small size of the child, the absence of malpresentation, the absence of interference, and the absence of anything in the history to account for the accident, combined to make it worthy of record. As to the treatment, he thought it was perfectly correct; the plugging of the rent with gauze was the most successful treatment in cases in which the fœtus and placenta had not escaped into the peritoneal cavity. He was not, however, surprised that the case was well treated, as Dr. Maxwell (who had only lately been his hospital assistant) was well known to him.

Dr. HERMAN concurred with what Dr. Champneys had said as to the merits of the paper. Dr. Maxwell had quoted some current statements, without, however, endorsing them as his own, and therefore he could hardly be held responsible for them. He said that in placenta prævia the uterus had been observed to be soft. It was true that some writers had said so; others had said that it was hard. He (Dr. Herman) did not think there was any marked or constant difference in consistence between the uterus with placenta prævia and any other pregnant uterus. He also said that spontaneous rupture of the uterus was due to fatty degeneration, and in that he followed the statements of eminent writers on midwifery. But he (Dr. Herman) knew of no good evidence to show that fatty degeneration of the uterus was present in cases of rupture of the uterus. Fatty degeneration of the uterus had been said to take place in the puerperium; but the more recent researches of Helme showed that it was no part of the process.

Dr. DRUMMOND ROBINSON, in reference to points raised by Drs. Herman and Tate regarding fatty changes in the involuting uterus, stated that he had had the opportunity of examining microscopically two specimens of involuting human uterus. Careful staining with osmic acid failed in both instances to demonstrate the presence of fat.

Dr. HERBERT SPENCER said that the case was one of unusual interest, which had been judiciously treated and well recorded. He was pleased to find that in two cases mentioned by the author in which gauze-packing had been employed, recovery ensued. Dr. Spencer had called attention to this method of treatment in a paper read before the Society last year, giving

notes of four cases successfully treated in this way. His previous experience had been that every case of rupture of the uterus (about eight in all) had died. At the present time it was usual to recommend abdominal section for complete rupture of the uterus, but that operation, especially if followed by hysterectomy, was generally too severe a shock for a patient suffering from a rupture of the uterus, and if those with experience of this accident would publish all their cases as he had done, he had no doubt that the results of hysterectomy would compare very unfavourably with those given by gauze packing.

Dr. Amand Routh had seen one case of spontaneous rupture of the uterus with placenta prævia. The patient was eight months pregnant, and had had several attacks of hæmorrhage (the last one the most serious). Under deep anæsthesia the cervix was found rigid, and it was not easy to insert the finger. An anterior marginal placentation was found. The tongue of placenta was separated from the lower uterine segment, podalic version performed, and the leg brought down to the half-breech, which was left *in situ* for nature to complete the delivery. In about twenty-four hours, the patient's doctor being then in charge, labour pains came on, and the child and afterbirth were spontaneously expelled. In two days septicæmia was evident, and the doctor then found that the uterus had ruptured anteriorly. In spite of all treatment the patient died. He had no doubt that Dr. Maxwell's treatment of his case by packing the rent with antiseptic gauze was the correct one to adopt, thus at the same time arresting hæmorrhage and securing drainage.

The President thought the treatment adopted was not only excellent in a "dirty Chinese home," but was the very best treatment in a London or any other hospital with every appliance available. The treatment of rupture of the uterus by packing with gauze was most successful in saving life. He certainly considered that much of this success was due to the fact that the parts had not been previously rendered septic by the accoucheur's hands. He related details of a most extensive rupture of the uterus which was treated by packing, this being renewed under chloroform every day for twelve days in succession, and then less frequently. The patient then became very ill, and at last a large slough was extracted from the right broad ligament, and ultimately the patient recovered.

OCTOBER 2ND, 1901.

PETER HORROCKS, M.D., President, in the Chair.

Present—35 Fellows and 1 visitor.

Books were presented by the Johns Hopkins, Middlesex, Westminster, and Guy's Hospitals Staffs, the Copenhagen Medical Society, the American Association of Obstetricians and Gynecologists, the Government Maternity Hospital, Madras, Professor Kleinwächter, Dr. Cullingworth, and Mr. Bland-Sutton.

Francis Porteus Tyrrell, M.A., M.B.Oxon., and Francis Rowland Humphreys, L.R.C.P.Lond., were admitted Fellows of the Society.

Thomas George Wilson, M.B., Ch.M.Sydney, F.R.C.S. Edin. (Armidale, New South Wales), was declared admitted.

The following gentleman was proposed for election :— Edward James Ambrose Haynes, F.R.C.S.I.

The following gentlemen were elected Fellows of the Society :—Arthur Stephen Inglis, M.D.Aber.; G. MacLellan Blair, M.B., B.S.; Walter Amsden, M.R.C.S., L.R.C.P.Lond.; Harry Meilor Weaver Bridgman, M.D., L.R.C.P.Lond. (Woodhall Spa); William Frederick Gardener, L.R.C.P.Lond.

LARGE OVARIAN TUMOUR RUPTURED ON THE THIRD DAY AFTER LABOUR.

Shown by Dr. Herbert R. Spencer.

Dr. Herbert Spencer showed a large multilocular ovarian cyst. The main cyst, which held thirty-one pints of fluid, had ruptured in three places. The cyst wall, especially around the holes, was very thin, and looked as if it had been stretched: no part of the tumour lay in the small pelvis.

The patient was 28 years of age, and the tumour had been known to exist for two or three years. She had refused to have the tumour removed. During the pregnancy the abdomen was enormously distended, but the labour took place without difficulty, and the progress of the patient afterwards was quite satisfactory until the third day, when the cyst ruptured and the patient became collapsed. She was removed in an ambulance to University College Hospital, but died of syncope immediately after her admission.

At the post-mortem examination there were no adhesions, and the pedicle was not twisted. The case shows the advisability of removing all large ovarian tumours at whatever period of pregnancy they are discovered, and the danger of delay in removing them after labour.

With regard to the cause of the rupture, he thought the pressure produced by the labour pains by stretching the cyst and interfering with the blood-supply was probably the chief cause, but perhaps vascular and tissue changes, associated with involution, might play some part in its causation.

Dr. Spencer, in reply to Dr. W. Duncan's remarks, did not think expression of the placenta could have had anything to do with the rupture: the doctor, being well aware of the presence of this enormous tumour, would not be likely to press upon it in order to express the placenta.

SUBPERITONEAL FIBRO-MYOMA.

Shown by Dr. Galabin.

This fibro-myoma weighed a little over twenty pounds, and did not originate from the uterus, but from the broad ligament, resembling one described by Mr. Doran in the forty-first volume of the 'Transactions.' The patient was aged 46, and the tumour had been growing for several years. Diagnosis was very doubtful before operation, as the uterus was of normal size, lying in front and separate from the tumour. The cervix was displaced upward and forward, and the lower part of the tumour descended into the pelvis behind nearly to the perinæum. It was thought that it might be a tumour of the ovary, but rectal examination showed it to lie rather behind than in front of rectum, as if springing from the left posterior pelvic wall.

At the operation the uterus and both broad ligaments were found to be free in front, separated from the tumour by the retro-uterine fossa of peritoneum as low as the internal os. The sigmoid flexure was stretched over the greatest circumference of the tumour. An incision was made through peritoneum and the tumour enucleated, vessels which bled being successively tied. The tumour appeared to be supplied from mesenteric and hæmorrhoidal arteries, both uterine and ovarian arteries being left intact.

Dr. Galabin packed the cavity with plain sterilised gauze, fearing to use antiseptic gauze in so large a space, and stitched the cut edges of the peritoneum to the lower part of the abdominal wound. The gauze was removed in forty-eight hours. The patient recovered well, but the cavity was slow in closing. She left the private ward at Guy's Hospital having still a narrow sinus, but this was reported as completely closed nine weeks later.

It would be seen that the tumour was pyriform, evi-

dently moulded to the shape of the abdomen and pelvis, and that only a small portion of peritoneum at its summit was removed with it. A section was shown under the microscope. The structure differed from that of an ordinary uterine myoma in having a larger proportion of fibrous tissue, some tracts consisting of fibrous tissue only.

Mr. Alban Doran congratulated Dr. Galabin on the successful result of his case. He intended shortly to report another. A woman was evidently suffering from multilocular ovarian cystic disease. A mass in the pelvis seemed to be a cyst of the opposite ovary. Mr. Doran removed the cyst, and then found that the mass was a small fibroid, quite separate from the uterus, and retro-peritoneal in position. It weighed under two and a half pounds, and was readily enucleated; thus it was a good sample of a fibroid in its early stage, independent of the uterus.

Dr. Galabin said that his view of the pathology of this large tumour was that it originated from the outer part of the broad ligament, and made its way behind instead of in front of the retro-uterine fossa of peritoneum. His chief reason for this was that he did not think it likely that it could arise from the mesentery. But the actual situation of the tumour was in the meso-sigmoid and the cellular tissue at the back of the pelvis, passing behind the rectum, both broad ligaments being apparently intact and free in front of it. The gap formed by its removal could not, therefore, have been closed by stitching together the broad ligament.

SARCOMA OF UTERUS.

Shown by Dr. Galabin.

Dr. Galabin showed under the microscope a section of a sarcoma of uterus, mainly spindle-celled, which had been taken for an ordinary fibroid tumour. The patient was an unmarried lady aged 28. The tumour was only discovered when she consulted a physician on account of abdominal pain, supposed to be due to indigestion. The

tumour was a central one, reaching a little above the umbilicus. The cavity of the uterus was but little enlarged, lying on the surface of the tumour in front, and there was no great menorrhagia.

The tumour was removed by retro-peritoneal hysterectomy. On section it had the general appearance of a fibroid with lobulated structure. A piece was sent for examination, and was reported on by the Clinical Research Association as sarcoma. The tumour itself had, unfortunately, not been preserved, being supposed to be an ordinary myoma. It might be a question whether it was a sarcoma from the first, or sarcomatous degeneration of a fibroid, but both the general appearance of the tumour and the character of the microscopic section, which showed interlacing bands, somewhat resembled the structure of a fibroid. The operation was performed on April 13th, and the patient remained quite well so far, although the cervix was left.

Dr. Herbert Spencer thought it was doubtful whether this specimen was a sarcoma or a fibro-myoma; he himself inclined to the opinion it was probably the latter. He thought the interlacing of the fibres was more marked than that usually seen in sarcoma, and he did not see any multinucleated cells such as are usual in sarcoma of the uterus. The changes which occurred in fibroids, as a result of degeneration, often caused them to resemble sarcomata under the microscope. He had met with five uterine sarcomata (with secondary growths), and had seen the disease associated with fibro-myoma, but he did not think it was yet proved that fibro-myomata underwent sarcomatous *degeneration*, though no doubt fibroids might be *invaded* by sarcoma.

The President considered that it had been conclusively proved that fibroids of the uterus did occasionally undergo sarcomatous degeneration. Mr. Doran had shown a specimen at the Pathological Society, and he (Dr. Horrocks) had shown one at this Society. But it must be borne in mind that it was not the muscular fibres that were primarily affected, but the connective tissue or intermuscular stroma. That this sarcomatous change should occur was not in the least surprising when one considered that the structure of a fibroid was precisely the same as that of the uterine wall itself, where sarcoma, though not nearly so common as carcinoma, was sometimes met with.

Mr. Alban Doran understood from the President's remarks

that the after history of his case could not be obtained. Unfortunately the patient in Mr. Doran's case, reported in the forty-first volume of the 'Transactions of the Pathological Society,' was also lost sight of. Changes in the plain muscle cells, due to irregular blood-pressure and consequent œdema, might cause them to resemble the cellular elements of malignant disease.

Dr. Galabin thought that the section labelled as sarcoma was malignant, on account of the extremely active proliferation of the nuclei. Although it was mainly spindle-celled there were some tracts consisting only of large round nuclear cells, with a very scanty and embryonic stroma among them. Since this case he had sent portions of all the uteri he had removed, for supposed myoma, for microscopic examination. One other which he had passed as an ordinary fibroid had been reported by the Clinical Research Association as sarcoma, but in that instance he was not fully convinced by the appearance of the section of its malignancy.

SUBPERITONEAL FIBROMA.

By Dr. William Duncan.

SARCOMA OF UTERUS.

By Dr. William Duncan.

PRIMARY MELANOTIC SARCOMA OF OVARY.

Shown by Dr. H. Russell Andrews.

(See Plate XIII.)

Dr. Andrews said that he was indebted to both Dr. Herman and Dr. Lewers for their kindness in allowing him to record this case.

DESCRIPTION OF PLATE XIII.

Illustrating Dr. H. Russell Andrews's specimen of "Melanotic Sarcoma of Ovary, apparently primary."

$\frac{3}{4}$ size.

Illustrating Dr. H. Russell Andrews's Specimen of Primary Melanotic Sarcoma of Ovary.

Engraved and Printed by Bale and Danielsson, Ltd.

L. R—, aged 35, married, six children, last seventeen months ago. Three miscarriages, last six months ago. Admitted into London Hospital August 23rd, 1901.

Patient was quite regular until two and a half months ago, since then has seen nothing. Has been losing flesh and getting more pale for three months. No pain to speak of, except very severe dyspareunia, which has made her faint. This pain is situated deeply, not at the orifice. It has only been severe for the last three months. Patient has vomited and retched frequently during the last three months, not specially in the morning.

Abdominal examination.—A soft elastic swelling can be felt rising out of the pelvis to a point three fingers' breadth below the umbilicus. Nothing heard over it.

Vaginal and abdominal examination.—Cervix is high up behind symphysis. Swelling felt in abdomen is pregnant uterus. Behind cervix is a fixed, tender, hard, nodular swelling, with deep sulci between the nodules, and filling up pelvis.

Per rectum.—Nodular, fixed, tender swelling bulging into rectum from in front. Breasts do not look active, except that the follicles on the primary areola are rather prominent. No fluid can be expressed.

Diagnosis.—Early pregnancy with solid ovarian tumour.

Operation by Dr. Herman (September 23rd).—The patient looked more cachectic than on admission. On opening the abdomen a black nodular tumour, looking like a hæmatocele, was seen behind and to the right of the uterus. This was found to be a solid tumour with no adhesions. The pedicle was not twisted. The pedicle was transfixed, secured with interlocking sutures, and divided.

The left ovary was rather large, and showed a recently ruptured Graafian follicle. There was no free fluid in the peritoneal cavity. The uterus was enlarged to the size of a four months' pregnancy. There were a few small black specks seen on the omentum and anterior surface of uterus.

The tumour was about seven inches by four. The

surface was deeply lobulated, black all over, hard in most places, but diffluent at one point.

On section it was solid, the interior as deeply pigmented as the surface; to the naked eye it looked like a melanotic sarcoma. About three inches of Fallopian tube were removed. This was apparently normal, except that it was of a very deep brown colour.

Microscopical sections show well-marked areolæ filled with good-sized round-cells. In the centre of many of the alveoli is some myxomatous degeneration. There is a loose reticular stroma. There are very numerous large polymorphous pigment granules, chiefly aggregated along the fibrous septa by which the tumour is subdivided. The pigment is chiefly intercellular, but in some places is apparently in the cells themselves.

On treating a portion of the tumour with potassium ferrocyanide and sulphuric acid no blue colour is obtained, so the pigment is apparently iron-free.

October 3rd.—The patient is making a very good recovery. She has not aborted.

Primary melanosarcoma of the ovary appears to be of very great rarity. Alveolar structure is common in melanosarcomata, which are rarely seen as primary growths except in the deeper layers of the skin or in the retina. They are sometimes met with growing from the mucous membrane of the lips and gums, and from the pia mater.

Bland-Sutton, in his Jacksonian prize essay on "Diseases of the Ovaries," says, "In cases of melanotic cancer or sarcoma secondary pigmented nodules are usually found in the ovaries."

The specimen shown does not look like a secondary growth, and the absence of similar disease in the left ovary also points to it being a primary growth.

No primary focus could be found in the eyes, mouth, or skin. There are a few small brown moles on the patient's neck, and one on the left thigh; but none could be found which was black, or which had been growing

lately. The patient stated that these moles had been present all her life, and that she had not noticed any of them increasing in size.

The liver is not enlarged.

References to melanotic sarcoma of the ovaries are rare. It is not mentioned in the ordinary text-books. No mention of it is made in—

1. 'Virchow's Archiv' for the last forty years.
2. 'Centralblatt für allgemeine Pathologie' for the last ten years.
3. 'Trans. Clin. Soc.,' vols. i to xxx.
4. 'Trans. Path. Soc.,' 1865 to 1886.
5. Gebhard, 'Pathologische Anatomie der weiblichen Sexualorgane.'

Fritsch, in 'Die Krankheiten der Frauen,' p. 440, says that sometimes a mixture of round-celled and melanotic sarcoma is found in the ovary. He does not quote any cases.

There are only two specimens of melanotic sarcoma of the ovary in the museum of the Royal College of Surgeons: No. 4546, in which it is not stated whether the growth is primary or secondary; and No. 4547, where the growth in the ovary is secondary to melanotic sarcoma of the eye. This case was reported in the 'London Medical Gazette' in 1845.

FIBRO-MYOMA OF THE OVARY.

By Dr. H. Russell Andrews.

Dr. Andrews said that he was indebted to Dr. Herman for his kindness in allowing him to show this specimen.

A. B—, aged 22. Admitted into the London Hospital on August 30th, 1901. Married two years, no children, one miscarriage at three or four months, one year ago.

Catamenia regular, every four weeks, until seven or eight months ago. For last seven or eight months has been complaining of abdominal pain, not increased at periods, and of losing too much and too often. For last four or five weeks has had severe abdominal pain in right iliac region. Was in London Hospital six years ago for anæmia, and two years ago for anæmia, vomiting, and hæmatemesis. Two years ago a rectal examination was made, and no tumour was found.

Condition on admission, August 30th, 1901. Patient is anæmic.

Abdominal examination.—Abdomen fat. Hard tumour is felt in right iliac and right half of hypogastric region on deep palpation. Breasts are not active.

Vaginal and bimanual examination.—Uterus, normal size and freely moveable, is pushed forwards by a rounded nodular swelling of cartilaginous hardness, about the size of a tennis ball. It seems to be fixed. It cannot be indented by finger, but yields slightly to firm pressure.

Examination per rectum.—Swelling is in Douglas's pouch. As felt *per rectum* it does not appear to be absolutely fixed.

September 13th, 1901.—Abdomen is distended, resonant in front, dull in both flanks. There is shifting dulness. No œdema of legs. Heart and lungs *nil.*

Operation.—On September 17th Dr. Herman made a small abdominal incision. A large quantity of clear orange-coloured fluid escaped. The incision was enlarged, and a freely moveable, non-adherent, solid tumour of the right ovary was removed. The left ovary was bound down by adhesions and was also removed.

The tumour of the right ovary is about the size and shape of a large kidney, slightly lobulated. It is very firm. In colour it is whitish yellow. On section it is found to be quite solid. To the naked eye it looks like a fibroma undergoing mucoid degeneration, or a very firm sarcoma. The tube attached to the tumour is thickened

and rather tortuous, and shows evidence of chronic inflammation.

Microscopically the tumour is seen to be composed of dense tissue. In many places there is well-formed fibrous tissue with rod-shaped nuclei, the fibrous tissue being arranged in wavy bundles, and mixed with a few muscular fibres. In other parts the tissue is less fibrous and more cellular, consisting chiefly of spindle-cells with oval nuclei. There are some round and polyhedral cells. The vessels are not very well formed, but the tumour as a whole is not particularly vascular.

Dr. Peter Horrocks thought melanotic sarcoma of the ovary must be extremely rare. He did not remember ever to have seen a case before. With regard to the other specimen of sarcoma of the ovary, he was struck by the fact that apparently it was impossible to say, from the microscopic appearances, whether it was a fibroma or sarcoma. Precisely the same difficulty arose in a case he himself had shown at the Society seven years ago. One eminent authority said it was a fibroma; and another, equally eminent, said it was a typical sarcoma. It was greatly to be desired that, if possible, the points of difference should be clearly defined. He considered that a fibroid of the uterus and a fibroma of the ovary might exist for years without increasing much in size, and that they might then become attacked by the sarcomatous changes and rapidly grow.

Dr. Andrews said, in reply, that there seemed to be some doubt in many of these melanotic tumours as to whether they ought to be classed with carcinomata or with sarcomata. He had already quoted Mr. Bland-Sutton, who calls them melanotic "cancers *or* sarcomata."

VOLSELLA FORCEPS FOR THE SOFT DILATED CERVIX.

Shown by Dr. Robert Wise.

LEUKÆMIA AND PREGNANCY.

By G. Ernest Herman, M.B.Lond., F.R.C.P.,

SENIOR OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL; PAST PRESIDENT OF THE SOCIETY.

(Received July 6th, 1901.)

(*Abstract.*)

The author reports a case of pregnancy with leukæmia. He has only been able to find twelve cases hitherto published as such. Critical examination shows that in five of these the evidence of leukæmia is deficient. We have therefore only eight cases from which to draw conclusions as to the mutual influences of pregnancy and leukæmia. These eight cases agree in the following points:

1. The presence of an enlarged spleen and liver causes patients with leukæmia to suffer more from the abdominal distension of pregnancy than healthy women.

2. The symptoms of leukæmia are aggravated during pregnancy.

3. In pregnancy with leukæmia there is a great tendency to abortion or premature labour.

4. Death sometimes quickly follows the termination of pregnancy with leukæmia.

5. If the patient survive the termination of pregnancy great improvement takes place.

The author concludes from these facts that in pregnancy with leukæmia the induction of premature labour or abortion is indicated as a therapeutic measure.

When leukæmia was discovered it was at first thought to be closely connected with the functions of the female sexual organs. This belief arose from the fact that in some of the first reported cases the illness either had followed delivery or was associated with some functional disorder of the reproductive organs. Those who took this view thought there was a relation between leukæmia and the state of the blood then supposed to be usual in pregnancy, and called by the names of "physiological chlorosis" or "serous plethora." But more extended observation has shown that the disease is twice as common in men as in women, and that in women it has no regular connection with the sexual organs. The blood changes in pregnancy, which were supposed to be physiological and to predispose to leukæmia, have been shown to be very slight and not constant, variations taking place in one direction as often as in another. Hence the occurrence of pregnancy with leukæmia has been, by some recent writers upon the subject, regarded as an incident having no importance in relation to the disease.

In this paper I shall relate a case of leukæmia with pregnancy, briefly summarise the cases already published, and point out the bearing of this clinical evidence on practice.

I can find recorded only seven genuine cases of leukæmia in pregnancy. Some others have been quoted as such by former writers on the subject; and it seems to me proper, before dismissing them from consideration, to give reason why they should be disregarded.

*Ingle's case.**—The inclusion of this case in papers on leukæmia in pregnancy seems to me an error. Ingle reported it as one of leucocytosis in pregnancy. There is no evidence of leukæmia in the report, and Ingle thought the case not leukæmia.

Paterson's first case.†—Patient aged 20; very robust when married; became pregnant three months afterwards;

* 'Lancet,' 1880, vol. i, p. 334.

† 'Edinburgh Medical Journal,' 1870, p. 1073.

good health, except for some vomiting, till a month before delivery. She then looked sallow, had a pulse of 90, was languid, but said she felt quite well. She was delivered at full term, labour being normal except for hæmorrhage in the third stage. She was thought to be doing well till the sixth day after delivery. Then the skin is described as having been tawny; the pulse was 120; the liver, spleen, and glands in the neck were enlarged, and there was some difficulty in swallowing. On the tenth day the blood was examined, and so great an excess of white corpuscles was discovered that it is said "not a fourth part of the corpuscles in view were red corpuscles." The enlargement of the glands of the neck increased, and the patient died on the eleventh day.

I cannot help agreeing with Cameron and with Sänger in thinking it very doubtful whether this case was really one of leukæmia. Sänger suggests that the leucocytosis was due either to puerperal sepsis or to diphtheria. There is no record of the temperature nor of any examination of the throat, and there was no autopsy. In the absence of these data it is impossible to affirm what the disease was, but its acute course is unlike that of leukæmia.

Paterson's second case.—Paterson was called to this case on account of post-partum hæmorrhage. She was pale and sallow. The spleen reached to halfway between the ribs and the iliac crest; the liver edge was two inches below the ribs. There was slight enlargement of the "lymphatic, thyroid, or other glands." The blood was "full of white cells." "In a short time the blood-discs arranged themselves into rows, while the white cells occupied the greater part of the field." The blood-corpuscles were not counted. It is said that fever increased (there is no record of the temperature) and pulse became more rapid. The enlargement of the lymphatic glands of the throat, neck, and upper part of chest increased, and killed the patient by asphyxia fourteen days after delivery. There is no record of any examination of the throat, and there was no autopsy.

In this case also I follow Sänger in thinking that the illness was too rapidly fatal for leukæmia, and that the imperfect record is consistent either with puerperal sepsis or diphtheria.

Paterson's third case.—This patient was pale and sallow, with a feeble and rapid circulation, poor appetite, and tendency to faint. Microscopical examination of the blood led to the discovery of "a large area of white-cell blood." The corpuscles were not counted. There was no enlargement of liver or spleen, but "some turgescence" of the glands of the neck. The patient was treated with iron, wine, and open air exercise, went to the full term, was delivered naturally without post-partum hæmorrhage, and after delivery steadily improved and got quite well.

It is not necessary to dwell on the lack of evidence of leukæmia in this case.

Paterson says that in every patient with a sallow skin he found the blood "charged with leucocytes," while "not a single white cell" was found in the blood of ruddy and otherwise healthy women. These statements suggest doubt as to the accuracy of his observations.

Greene's second case.—This was a primigravida, aged 19, who suffered from pallor and dyspnœa. Microscopical examination of the blood showed "a pronounced increase in the number and proportion of white cells." The corpuscles were not counted. There is no statement about the liver, spleen, or glands. Abortion was induced, it is not stated at what period of pregnancy. The patient was treated with arsenic and got well.

I see no evidence of leukæmia in the report of this case.

I come now to the cases which seem to me genuine instances of leukæmia with pregnancy. Seven have been published, and I have an eighth to add.

1. *Cameron's case.**—The patient was aged 36. She had been ill two years before she came under Cameron's

* 'American Journal of Medical Sciences,' 1888, vol. xcv, p. 28.

observation. The splenic tumour was first noticed at the beginning of the sixth pregnancy. No account is given of the course of this pregnancy. She was first seen by Cameron when about seven months gone in her seventh pregnancy. At this time the splenic dulness measured eleven inches from above downwards, and the hepatic dulness six inches. The lymphatic glands were not enlarged. The white corpuscles were to the red as 1 to 10. The patient suffered so much from œdema, dyspnœa, weakness, fainting, sleeplessness (from inability to lie down), epistaxis, that "her condition became alarming." Premature labour came on spontaneously on the 214th day from the cessation of menstruation. There was no post-partum hæmorrhage. After delivery the white corpuscles were to the red as 1 to 4, on the third day as 1 to 20, on the twelfth day as 1 to 35. After her discharge from the hospital the patient enjoyed tolerably good health, her colour improved, the dyspnœa and œdema disappeared, and she gradually resumed her household duties.

Six months afterwards she again became pregnant, and the spleen at once began to enlarge. When four months pregnant the white corpuscles were to the red as 1 to 3. The report of this case is not carried further.

This case exemplifies great improvement following delivery, and aggravation of the disease when the patient again became pregnant.

2. *Greene's first case.**—The patient was a primigravida, aged 21, who had suffered from ague. The disease was perceived in the fourth month of pregnancy. She was seen by a medical man soon after the completion of the fifth month of pregnancy. There was pallor, enlargement of spleen, and dyspnœa. The reporter was "inclined to think the liver enlarged." The white corpuscles were to the red as 1 to 20. The induction of abortion was considered in consultation, but those consulted decided against this measure. Premature labour came on spon-

* 'New York Med. Journal,' Feb. 11th, 1888.

taneously at the end of the sixth month. Hæmorrhage was slight. The blood from the umbilical cord was bright red. The patient died in collapse twenty-two hours after delivery. There was no autopsy, nor is there any further account of the child.

Although the record is imperfect, yet I think this must be accepted as a genuine case of leukæmia during pregnancy, and it goes to show that pregnancy accelerates the course of the disease.

3. *Sänger's case.**—The patient was aged 32. The symptoms were first noticed at about the date of her becoming pregnant, so that the disease was probably already present at the time of conception. The patient was first seen early in the third month of pregnancy. The spleen was greatly enlarged, reaching to within two fingers' breadth of Poupart's ligament. The liver was not enlarged, nor the lymphatic glands. The white corpuscles were to the red as 1 to 15.

In the second half of pregnancy the symptoms became severe, but there was no marked increase in the leukæmia. The patient suffered so much from abdominal distension, pain, and sleeplessness that labour was induced at the beginning of the seventh month. The child was born alive, was healthy, not leukæmic, and thrived. Hæmorrhage in the third stage of labour was slight. The patient did not suckle her child. Three months after delivery the patient's condition was comparatively good, she had regained appetite, and was able to do her household work; but the spleen was larger, and white corpuscles to red as 1 to 10.

This case presents increased severity of symptoms as pregnancy went on, and great relief following delivery.

4. *Laubenburg's case.*†—The patient was aged 32. The disease had been gradually coming on for six or seven years. During this time she had become pregnant four times. With each pregnancy her condition had

* 'Arch. für Gyn.,' Band xxxiii.

† Ibid., Band xl.

become worse, and after each labour or abortion there had been a remission of symptoms. One only of the pregnancies had gone to term, three had ended spontaneously in abortion. After the labour and the abortions hæmorrhage was only slight. Menstruation was scanty.

When seen by Laubenburg the spleen reached to below the level of the umbilicus and almost to the middle line. The liver extended four centimetres below the ribs. No enlarged glands were felt. The uterus reached to three fingers' breadth below the umbilicus. The urine contained albumen and casts. The white corpuscles were to the red as 1 to 10.

Abortion took place spontaneously three days after the patient came under Laubenburg's observation at twenty weeks' gestation. Hæmorrhage was slight. The patient gradually passed into coma, and died comatose forty hours after the abortion. Fifteen hours after abortion the white corpuscles were to the red as 1 to 15, thirty hours after abortion as 1 to 20.

5. *Schroeder's case.**—This patient was born in 1872, married in 1890. Had never suffered from malaria. Had had two miscarriages and five children, the fifth born in the latter part of 1896. The patient during this pregnancy had felt weak, but not more so than in her former pregnancies. After delivery this feeling of exhaustion increased. In November, 1897, soon after delivery, a lump in the abdomen was noticed. The patient continued to feel tired and incapable of effort. She suffered from palpitation, faintness, headache, noises in the ears, poor appetite and sleep, breathlessness and tendency to pulmonary catarrh.

She came under Schroeder's care on November 20th, 1897. Her last menstruation was on June 10th, 1897. She was thin and sallow, but her mucous membranes were normal in colour. No enlarged lymphatic glands were felt. The liver edge was two fingers' breadth below the ribs. The spleen reached from the

* 'Archiv für Gyn.,' Bd. lvii, S. 26.

eighth rib to the iliac fossa. The body of the uterus reached as high as the umbilicus, but was displaced to the right by the spleen. The blood was pale in colour, hæmoglobin 50 per cent., white corpuscles to red as 1 to 28. The diagnosis was that her disease was pure splenic leukæmia without affection of the medulla of bones or of lymphatic glands.

The patient sought advice in the hope that her pregnancy might be terminated, for she had become so much worse since the pregnancy that she regarded this condition as the source of her trouble.

The symptoms—shortness of breath even when at rest in bed, headache, continual faintness, noises in ears, loss of appetite, inability to do the least work, feeling of distension in the abdomen—were so distressing that it was not thought right to let the condition continue even the few weeks that might have made the birth of a viable child possible.

November 23rd.—Membranes ruptured, cervix and vagina plugged with iodoform gauze, and ergot given.

25th.—Slight pains, plugging removed.

29th.—Fœtus expelled spontaneously in breech position, dead. Bleeding slight.

After delivery the patient's general condition greatly improved. Sleep became sound, appetite increased, the bowels acted regularly, the headache, faintness, palpitation, and shortness of breath were gradually lost, as well as the feeling of abdominal distension.

December 11th.—Hæmoglobin 50 per cent., white corpuscles to red as one to twenty. Girth of abdomen 95 centimetres. Spleen extends beyond the middle line, and to the level of the anterior superior iliac spine, its upper limit in the axillary line being the eighth rib.

Discharged cured ("Völlig geheilt").

6. *Merttens's case.**—This patient was aged 28, and had three children and two miscarriages, the last at the beginning of 1898. Her last menstruation was in April,

* 'Monatssch. für Geb. und Gyn.,' Band xii, 1900, S. 342.

1899. In the third month of her pregnancy her husband was struck by the great size of her breasts. At the same time there was swelling of the belly, slow swelling of the legs and face, pallor of the skin and mucous membranes. The swelling varied, sometimes more, sometimes less, but on the whole the patient got worse and worse as pregnancy went on.

She was seen by Merttens on August 27th, 1899. She was then, in his opinion, in a hopeless condition. There was œdema of the legs and genitals with petechiæ. Pulse 120, irregular; great dyspnœa. There was ascites. The liver edge was at the level of the umbilicus. The spleen reached two fingers' breadth beyond the ribs. There were enlarged glands in the groins and neck. The gravid uterus reached a hand's breadth above the symphysis.

In view of the patient's hopeless condition, the induction of abortion was advised.

On August 28th the patient was admitted into the hospital, and three laminaria tents were put in. Pains soon came on with bleeding from the nose and mouth. The patient died in an hour and a half.

No complete examination of the blood was made, and there was no autopsy. The finger was pricked when the patient was dying, and the blood examined. The red corpuscles were greatly diminished in number, and the white corpuscles were in striking quantity, but they were not counted.

Merttens thinks that taking this imperfect examination of the blood together with the enlargement of the liver glands and spleen, the diagnosis of leukæmia is justified.

7. *Hilbert's case.**—I have not been able to get at the full report of this case. I am obliged to quote from a brief abstract, in which the facts necessary to justify the diagnosis are not given. But the case was during part of the illness under the care of Professor Dohrn, and was

* 'Deutsch. med. Woch.,' 1893, No. 36.

reported to a meeting of a medical society at which Professor Dohrn was in the chair, without any exception being taken by him to the diagnosis, so I presume it must be taken as accurate.

The patient was aged 37. She was taken ill on November 5th (being then in the eighth month of her eighth pregnancy), with headache, depression, slight fever, and bronchial catarrh. Then came diarrhœa. The patient kept about for five weeks, after which swelling and ulceration of the gums appeared.

December 24th.—The blood was examined, and showed undoubted leukæmia.

26th.—Nodules in the tongue the size of hazel-nut noticed.

27th.—Petechiæ over limbs and gums. Two necrotic spots in soft palate. Retinitis.

29th.—Admitted into the hospital under the care of Professor Dohrn, was delivered of a macerated child, and died in collapse ten hours afterwards. Hæmorrhage slight.

An autopsy was made by Askanazy. The most important condition found was the lymphatic form of leukæmic bone-marrow disease. Spleen and lymphatic glands were slightly enlarged. Swelling of Peyer's patches and solitary glands, many of the latter in the large intestine being ulcerated.

8. *Author's case.* (Reported by Dr. J. H. Philbrick, House Physician, and Mr. C. H. Miller, Clinical Clerk.) —E. R. L—, aged 27, was admitted into the London Hospital, under the care of Dr. Sansom, on September 26th, 1900.

She had heard her mother say that she (the patient) had had ague when eight years old. She had lived all her life in Bethnal Green. She had been married seven years, and had had five children, the last a year ago.

She stated that she had been ill three years. She dated the illness back to a confinement, after which she had lain in bed two months suffering from faintness,

weakness, shortness of breath, pallor, giddiness, slight wasting.

She became worse three weeks ago, with faintness, pain in the left side, headache, and noises in the head. A week ago she gave up work and took to her bed. She had no additional complaint; her reason for going to bed was that the weakness was more than she could stand. She had never been so ill before.

She had been pale and weak for some time after each of her confinements, and after the last one, which was at Christmas, she had pneumonia. She says she has lost weight lately.

When seen, soon after admission, the patient was lying on her right side: she said she could not lie on her back or left side on account of pain. She was sallow, and her mucous membranes very pale. No clubbing of fingers. Profuse sweating, especially at night. Some œdema of legs. A scar over right tibia, which patient says is the result of a sore place due to "constitutional disease." No enlarged glands. Breath short; breathing shallow, 28 per minute. Resonance deficient, and breath-sounds weak over right chest. Slight cough, no expectoration. Pulse 110, weak and soft. Cardiac dulness not increased; no murmur. First sound soft, apex-beat felt over an abnormally wide area. Appetite fair; much thirst; bowels costive. Tongue slightly furred. Ascites. Spleen enlarged, reaching almost to iliac crest, and tender. Liver edge slightly below ribs. Speech slow. Knee-jerks and plantar reflexes slow. No retinal changes. Urine 1020, acid, dark-coloured, large deposit of urates. Blood: average of 50 squares, 1,400,000 corpuscles per c.mm. Proportion of white to red 4 to 10;

$$\textit{i.e.}\ \text{red blood-corpuscles} = \frac{\text{normal}}{5}$$

$$\text{white} \quad ,, \quad = \frac{4 \times \text{normal}}{5}$$

—a relative increase of white blood-corpuscles, and absolute decrease of red blood-corpuscles. (For this count

Gowers's instrument was used.) Many large mononucleated leucocytes staining with eosin. Some large eosinophile cells with multinuclei of irregular shape. Not many cells staining with the basic dye, principally lymphocytes. No nucleated red corpuscles found; some crystals were present. The patient was treated with iron and cacodylate of soda.

On October 1st a blood-film was made by Mr. C. H. Miller and examined. It showed—

1. A distinct relative leucocytosis, but, owing to imperfection of the film, it was difficult to estimate its extent.

2. A great number of normoblasts (nucleated red blood-corpuscles).

3. No other abnormal cell elements were detected. Almost all the leucocytes were of the multinuclear neutrophile variety.

October 19th.—Patient left the hospital with her symptoms much improved. A blood examination was made with a Thoma-Zeiss hæmocytometer, with the following result:

Red blood-corpuscles .	4,617,190
White blood-corpuscles .	7,812
Hæmoglobin . .	56 per cent.

Blood-films were taken on this occasion, and stained by all methods necessary to show up the presence of abnormal cell elements; none, however, were found, and the normoblasts, so frequent in the film made on October 1st, were entirely absent.

November 11th.—The patient was again admitted under the care of Dr. Sansom. The notes on this occasion were taken by Dr. F. H. Philbrick and Mr. G. M. Clowes. She said that she had remained well for a week after her discharge, but was then seized after a meal with a dull heavy pain in the epigastrium, worse on inspiration, relieved by vomiting. No blood vomited. Also of a bearing-down pain, and of noises in the ears. No œdema. No enlarged glands. Has lost two and a half pounds in weight. Very short of breath. Respira-

tions 32 per minute. Slight cough. No cyanosis. Much diarrhœa. Spleen enlarged, extending to top of iliac region. Liver edge not well felt. Uterus reaching to within an inch of umbilicus.

On December 1st she was transferred to the care of Dr. Herman. (The further report of the case is by Dr. J. Sherren, Resident Accoucheur, and Mr. E. F. Fisher, Clinical Clerk.) Last menstruated six and a half months ago. Throughout this present pregnancy has vomited two or three times daily; has never been so sick in any former pregnancy.

December 3rd.—The fundus uteri reached to the umbilicus. The os internum was so open that the finger could be passed through it. The membranes were ruptured with a sound at 9.30 p.m. There were no pains until early in the morning of December 5th. The fœtus and placenta were naturally expelled at about 4 p.m. Hæmorrhage slight. The child was stillborn, although the fœtal heart had been heard the day before delivery.

10th.—Patient feels much better. Blood shows 28 per cent. hæmoglobin.

14th.—Spleen extends as far down as level of umbilicus.

April 9th, 1901.—Patient, in compliance with request, attended at the hospital. She says she feels well. Does all her own household work, and takes in work besides (sewing machine). Appetite good. Sleeps well.

She is sallow, and her mucous membranes pale. Spleen reaches down to level of umbilicus. Left lobe of liver extends down to within a finger's breadth of the umbilicus; right lobe as far down as the iliac crest.

The blood was examined by Mr. A. J. Simey, with the following result:

Red blood-corpuscles .	3,175,000
White blood-corpuscles .	9,531
Hæmoglobin . . .	42 per cent.

A differential count of the various forms of white blood-corpuscles showed—

Polynuclear, neutrophile	137	Total number counted 209.
Polynuclear, eosinophile	10	
Lymphocytes . .	56	
"Transitional" of Ehrlich	6	

No normoblasts found on this occasion; the red blood-corpuscles, however, exhibit a well-marked poikilocytosis.

In this case it is difficult to date the onset of the disease, but there was leukæmia, greatly aggravated during pregnancy, and greatly improved after delivery, even to restoration of the blood state nearly to health, although enlargement of spleen and liver persisted. I have the permission of my colleague, Dr. Sansom, under whose care the patient at first was, to say that he concurs in this view of the case.

These eight cases are all that I can find illustrating the mutual effects of pregnancy and leukæmia upon one another. The evidence is scanty, but, so far as it goes, its bearing seems clear.

1. The effect of *leukæmia upon pregnancy*. (*a*) It is evident that when a woman whose abdominal space is already encroached upon by enlargement of the liver and spleen becomes pregnant, the enlargement of the uterus must produce more abdominal distension, and consequently greater distress to the patient, than occurs in the pregnancy of a healthy woman. Sänger, in his case, found no evidence of any effect other than this from the combination of the two conditions. But this effect seems to be either very great or very much felt, for in Sänger's own case he found the induction of premature labour at seven months necessary. (*b*) In Cameron's case premature labour came on spontaneously. In Greene's case miscarriage was spontaneous. Four out of the five pregnancies of Laubenburg's patient ended in abortion. Thus out of seven pregnancies six ended prematurely. This goes to show that leukæmia in pregnancy brings with it

a probability of premature labour or abortion. In all the cases as to which information on the point is given the hæmorrhage accompanying expulsion of the uterine contents was slight.

2. *The effect of pregnancy on leukæmia.* (*a*) It seems to me that the symptoms—feeling of distension, dyspnœa, œdema, palpitation, vomiting, pain, sleeplessness, etc.—in the cases recorded became distressing too early in the pregnancies to be accounted for simply by unusual abdominal distension. In Cameron's case improvement after delivery, and aggravation in subsequent pregnancy, was shown by blood-counts. In all the cases that survived the termination of pregnancy great improvement followed. This was observed in the cases reported by Cameron, Sänger, Schroeder, and in my own. Laubenburg's patient gave a history of having been worse in each pregnancy, better as soon as it was over. It seems to me that these facts, few though they are, go to show that pregnancy gravely aggravates leukæmia.

In Greene's case and Laubenburg's case the pregnancies spontaneously ended prematurely, and the patients died, one in collapse twenty-two hours after delivery, the other in coma forty hours after delivery. In Merttens's case the patient was so ill that the induction of abortion at the end of four months was judged necessary, and the patient died an hour and a half afterwards. Hilbert's patient died in collapse ten hours after delivery at eight months—whether induced or not is not stated. Hence we must consider rapid death after the interruption of pregnancy, whether this occur naturally or is induced, as a possible ending of a bad case of leukæmia with pregnancy.

If we consider these facts, that leukæmic patients suffer to an unusual degree from the distension of the belly in pregnancy, that in leukæmia pregnancy aggravates the symptoms and deteriorates the blood, that pregnancy with leukæmia is often spontaneously interrupted, and that rapid death may follow spontaneous

premature delivery, but if the patient survive the termination of pregnancy great improvement takes place, I think the practical conclusion follows, that in leukæmia with pregnancy the induction of premature labour or abortion is indicated as a therapeutic measure.

Dr. Amand Routh remarked that the paper was one of special value, as he knew that particulars of the combination of leukæmia with pregnancy were rare in medical literature. As Dr. Herman had remarked, it was a combination of a blood dyscrasia with a condition causing pressure from the presence of a large spleen. It was, therefore, different from ordinary blood dyscrasias such as in other specific diseases, and also from conditions causing simple pressure, such as the presence of an ovarian tumour; and he agreed with the author's view that this fact imparted a special feature to the condition. There was a point not alluded to in the paper about which he would like to ask Dr. Herman, namely, as to the effect of leukæmia on the fœtus *in utero*. A good deal had been written on the transmission of diseases to the fœtus, and it appeared that a process of filtration might be effected by a perfect chorionic epithelium, whilst a defective epithelium would allow of the transmission of disease to the fœtus. This was illustrated by cases of twins, in which one fœtus was healthy and the other affected with the same disease as the mother, such as cholera, glanders, malaria, erysipelas, and many of the acute specific fevers. Had any of the children of these leukæmic women had their blood examined after birth? He quite agreed with Dr. Herman's conclusion that premature labour should be induced when symptoms threaten to become urgent, without waiting for serious developments.

Dr. Galabin had met with one instance of the association of pregnancy with a disease as to which he was rather doubtful whether it should be classed as splenic leukæmia or so-called pseudo-leukæmia. There was a large splenic tumour, reaching as low as the crest of the ilium, with extreme anæmia and tendency to hæmorrhage. But the relative proportion of leucocytes in the blood was very moderately increased, not to that extreme degree which is seen only in leukæmia. He had watched the lady for several years, and under treatment with arsenic and large doses of quinine the tumour somewhat diminished in size, and the general condition improved. On one occasion she came for consultation, being about three months pregnant, and reported herself as feeling better. The spleen also seemed to have diminished in size since the pregnancy. He had had no experience of the effect of pregnancy on such

a condition, and feared grave results from the tendency to hæmorrhage, but in view of the actual improvement did not advise interference at that time. The patient shortly afterwards went to France, and there it was decided to induce abortion before the child had become viable. He did not know whether the reason was the abdominal distension or the general symptoms. The result was that the patient died undelivered, and, so far as he could learn from the friends, the cause of death was hæmorrhage.

Dr. Peter Horrocks was surprised to hear how little hæmorrhage there was from the uterus in these cases of miscarriage during leukæmia. Hæmorrhages were common in this disease, and probably that accounted for the miscarriages, the bleedings occurring into the placenta and destroying the ovum or fœtus. In some cases hæmorrhage occurred some time before the actual miscarriage, and thus allowed certain changes to take place which prevented flooding. He understood Dr. Herman to advocate the induction of miscarriage or labour as soon as the presence of leukæmia was discovered, without waiting for any bad symptoms such as pain, etc.

Dr. Herman said that the infant was not affected. He advised induction of premature labour or abortion as a therapeutic measure only in cases in which the symptoms caused suffering, and were aggravated after the onset of pregnancy.

NOVEMBER 6TH, 1901.

PETER HORROCKS, M.D., President, in the Chair.

Present—42 Fellows and 2 visitors.

Books were presented by the Westminster Hospital Staff, the American Gynecological Society, and the Clinical Society.

Robert Hamilton Bell, M.B., B.C.Cantab., Walter Amsden, L.R.C.P.Lond., and Harry Meilor Weaver Bridgman, M.D. (Woodhall Spa), were admitted Fellows of the Society.

The following gentleman was elected a Fellow of the Society:—Edward James Ambrose Haynes, F.R.C.S.I. (Perth, Western Australia).

ON A CASE OF GONORRHŒAL PELVIC PERITONITIS.

By J. BLAND-SUTTON, F.R.C.S.

(With a Bacteriological Note from Dr. ALEX. G. R. FOULERTON.)

(Received October 14th, 1901.)

A GREAT deal of doubt still exists in the minds of many competent judges, whether the *Micrococcus gonorrhœæ* can

give rise to pelvic peritonitis. In the 'British Medical Journal,' 1896, vol. ii, 1309, I reported a case under my own care which quite satisfied me that this coccus can; but a subsequent writer (Cushing) has expressed himself as not being quite satisfied that my case was a genuine example of gonococcal peritonitis; and my friend Dr. Foulerton, a very expert bacteriologist who has given very close attention to this coccus, also told me that he was not quite satisfied with the bacteriological evidence. However, it has recently been my lot to meet with a similar case, and to secure Dr. Foulerton's able co-operation.

The patient, a single woman 22 years of age, had complained of recurrent attacks of pain in the right iliac fossa over a period of eighteen months. These attacks, of which three had been well marked, would occur quite suddenly, and confine the patient to bed for a few days; the temperature would rise to 101° and slowly subside. The physical signs and the condition of the patient led the doctor in charge of the case to regard the trouble as relapsing appendicitis.

In November, 1900, I saw the patient in consultation; she furnished the history and signs of trouble connected with the vermiform appendix, and on vaginal examination I detected a rounded tender swelling in the right half of the pelvis near its brim, which suggested an enlarged and swollen ovary and Fallopian tube. The various points of the case were carefully considered with the patient's friends and the desirability of an operation.

A few days later I performed cœliotomy; as I opened the peritoneum over the cæcum, many ounces of very lightly blood-tinted serum gushed out. The omentum, intestines, and cæcum were very congested. The vermiform appendix dipped into the pelvis, and could be felt adherent to an enlarged ovary. I could then make out an ovary as big as a duck's egg adherent to the surrounding structures. This was carefully detached with the Fallopian tube, and after securing the pedicle with fine

silk it was removed. The vermiform appendix still remained adherent to the pelvic wall, and could not be easily detached ; as it was thickened and damaged I thought it prudent to remove it. The uterus, of normal size, was embedded by adhesions among coils of small intestine ; the left ovary and tube seemed normal and were not interfered with. A quantity of sticky, blood-tinted serum required removal, and the recesses in the pelvis, especially the utero-vesical pouch, contained clots derived from the sticky fluid in the belly. All was carefully removed with sterilised dabs, and the wound closed in triple layers, and a small piece of gauze inserted as a peritoneal drain in the lower angle of the wound. It at once occurred to me that I had to deal with a gonorrhœal infection of the peritoneum, so I took the precaution to examine the vulva and vagina, which were found thickly coated with a yellow tenacious fluid.

The Fallopian tube, ovary, and the vermiform appendix were at once wrapped in a fold of sterilised Gamgee tissue and conveyed to Dr. Foulerton, who received them within forty minutes of their removal, and, as will be seen in the subjoined note, he obtained a pure culture of the *Micrococcus gonorrhœæ*.

With the exception of a troublesome sinus in the track left by the gauze used for drainage, the patient made a good recovery ; the sinus closed later, and the patient was reported in excellent health.

Note by Dr. Alex. G. R. Foulerton.

Description of a right tube and ovary received from Mr. Bland-Sutton.

The tube is thickened, and its outer extremity is adherent to the ovary. The ovary is enlarged, and in its upper part close to where the tube is adherent to it there is an abscess about the size of a cob-nut.

The tube contains a small quantity of gelatinous pus ;

the abscess in the ovary also contains a thick gelatinous pus.

On microscopic examination of sections of the tube it is seen that the thickening is mainly due to an inflammatory infiltration, principally of the subepithelial tissue. The epithelium itself does not seem to be much altered. In smear preparations of the pus from the tube a few diplococci could be seen; these cocci corresponded morphologically with the *Micrococcus gonorrhœæ*, and did not stain by Gram's method.

No bacteria of any sort were detected in stained smears of pus from the ovarian abscess. A number of nutrient agar, gelatine, and pepton broth tubes were inoculated with the pus from the tube and from the ovarian abscess. From each specimen of pus two agar plates, previously smeared with fresh human blood, were inoculated. The broth, agar, and blood-smear preparations were incubated at 37° C., the gelatine at 22° C.

On each of the two blood-smear plates inoculated with the pus from the tube a few colonies, five or six on each plate, appeared after twenty-four hours' incubation. Of the two blood-smear plates inoculated with pus from the ovarian abscess, one showed a growth of two colonies, the other of a single one. All the other media inoculated remained absolutely sterile.

The colonies growing on both sets of blood-smear plates proved to be a pure culture of *Micrococcus gonorrhœæ*, showing on further testing all the cultural, morphological, and staining characteristics of that organism.

Dr. Drummond Robinson referred to a similar case by Wertheimer, in which cultures from the peritoneal pouch, on a mixture of human blood-serum and agar-agar, had resulted in the growth of numerous colonies of the gonococcus. The gonococcus was very sensitive to cold, and quickly died when exposed to a temperature a few degrees below that of the human body. It was interesting, therefore, to find that successful cultures of the organism could be obtained forty minutes after its removal from the body, as in this case.

TUBAL MOLE WITH ENCYSTED HÆMATOCELE.

By W. S. Handley, M.S.

The clinical history of this case was recently published in the 'Lancet'* by Mr. Alban Doran, who successfully operated on the case, and very kindly entrusted the examination of the specimen to me. The most remarkable clinical feature was the presence of the sac entirely anterior to the uterus, just as in the specimen previously shown by Mr. Doran before this Society ('Trans. Obst. Soc.,' vol. xlii, p. 134) a right tubal sac lay chiefly on the left of the uterus.

Pathologically, its most remarkable character is the presence of two clot-containing sacs communicating by an opening which appears to represent the abdominal ostium.

The clinical history is briefly as follows:—The patient, aged twenty-nine, married nine years, has three children, the youngest born in November, 1900. No miscarriages. On May 10th, six weeks after a normal period, she had a show, which lasted a week and culminated in a profuse hæmorrhage, with pain in the left iliac fossa and attacks of fainting. She continued to get about, though the symptoms persisted more or less, until June 20th, when she was admitted into Charing Cross Hospital under Dr. Routh. A swelling was felt in the utero-vesical pouch, which on July 2nd had increased to the size of a fist. On July 6th it was harder and more fixed, but not larger. On July 12th, owing to the closure of Charing Cross Hospital, she was transferred to Mr. Doran's care at the Samaritan Hospital. At this time the lump was as large as a turkey's egg and very tender. Dark powdery clot was escaping from the os externum. The temperature had never exceeded 100·4°.

At the operation on July 23rd there was no free blood

* "Tubal Gestation Sac entirely Anterior to the Uterus; Operation; Recovery," 'Lancet,' vol. ii, 1901, p. 723.

in the peritoneal cavity; the tumour was of deep orange-red colour, and adherent to bladder, uterus, omentum, appendix, and slightly to the left ovary. The appendix was long, thick, and fleshy.

The specimen shown consists of the left uterine appendages with what is apparently an encysted hæmatocele adherent to them. It must be remembered that the whole mass was rotated forwards and to the right over the left round ligament, so that it lay in the utero-vesical fossa.

The Fallopian tube is normal in appearance for an inch at its uterine end. Beyond this point it is dilated into an oval swelling of the size of a hen's egg. The swelling is full of firm dark clot, adherent above to the wall of the tube, and showing microscopically somewhat degenerate chorionic villi. Neither amniotic cavity nor embryo is present in the clot. The mass is evidently a tubal mole, and will be called the proximal swelling. Attached to the sac of the tubal mole over an area of about a square inch in what appears to be the situation of the fimbriated extremity is a second sac, somewhat sausage-shaped, about four inches in length by two in diameter, and containing soft, dark, non-adherent blood-clot. This sac will be referred to as the distal swelling. Its walls are about one sixteenth of an inch thick, soft and friable, so that it was ruptured during extraction. Externally its surface is smooth in parts, but rough where it was adherent to appendix, uterus, bladder, omentum, and slightly to the left ovary. Its inner surface is rough, with flakes of clot sticking to it in places.

A probe passed from the interior of the proximal sac comes out into the interior of the distal sac, lifting up as it does so a fringe of processes surrounding the opening between the sacs. Some of these processes are quite free, and a quarter of an inch long. They appear to be undoubted fimbriæ.

The distal swelling curves forwards, upwards, and to the right above the convexity of the proximal dilatation.

Microscopically the wall of the proximal swelling shows the muscular layers of the tube. There is no decidua present; where the clot is not adherent epithelium-covered plicæ can be seen. A section of the undilated uterine end of the tube also fails to show a decidua, though a few of the connective-tissue cells of the subepithelial tissue approximate in character to decidual cells,—that is to say, they appear swollen, with large pale nuclei, showing a wide-meshed chromatin network. The epithelium is intact, but cilia are only present on a few of the cells. This may perhaps be due to a fault of technique.

The wall of the distal sac is composed of vascular and richly nucleated fibrous tissue arranged in interlacing bundles. No layers of muscle can be recognised in it, nor has it a lining of epithelium. The muscular coat of the appendix is somewhat hypertrophied and œdematous; its length is four inches. The changes in it are no doubt due to the increased blood-supply set up by its adhesion to the distal sac.

The pathology of the specimen is clear except as regards the origin of the distal sac. This was at first thought to be the dilated outer portion of the Fallopian tube. Hour-glass dilatation of the tube with acute bending is not unknown. Mr. Doran has pointed out ('Encyclopædia Medica,' art. "Fallopian Tube") that in such a case the plicæ projecting from the narrow orifice between the two dilatations may simulate fimbriæ. He says, in describing how cases of bilocular hydrosalpinx have been wrongly called tubo-ovarian cysts, "The plicæ of the uterine half which is less distended project around the orifice communicating with the dilated portion, assuming the appearance of fimbriæ as they float in the fluid contents."

In this case, however, the fimbriæ are well developed, and can hardly be mere projecting plicæ. If they are true fimbriæ the distal sac cannot be tubal. This conclusion is borne out by the microscopic structure of its wall, especially by the absence of epithelium and layers

of muscle, and is further strengthened by the absence from its interior of radiating lines representing stretched fimbriæ, and from its exterior of a dimple representing the closed ostium.

Another possibility is that the distal sac is of fœtal origin, representing perhaps a bag of membranes bulging from the ostium which has subsequently acquired adhesions to viscera. If such were the case, however, the fimbriæ would be outside the sac.

The truth appears to be that the distal swelling is an encysted hæmatocele, its wall simply consisting of false membranes. Such a view is consistent with all the facts, especially with the microscopic structure of its wall, its friable character, and its numerous adhesions. Probably the fimbriæ had become tucked into the tube and their peritoneal surfaces joined by soft lymph when subchorionic hæmorrhage took place. The young adhesions were stretched and distended gradually by slow effusion of blood from the ostium, without giving way. The sac thus formed is in fact a sort of false aneurism of the peritoneal adhesions closing the abdominal ostium. The process may be compared to glass-blowing, the Fallopian tube representing the blowpipe, the lymph round the end of the tube the soft lump of glass, and the effused blood the stream of air which distends the lump into cystic form.

Such a form of hæmatocele, fashioned by the blood-pressure within it and having an independent sac only partially adherent to its surroundings, might be called a hæmodynamocele.

Mr. Alban Doran noted that the displacement of the tube entirely forwards was the most remarkable feature of this case. The adhesion of the appendix vermiformis was secondary to the displacement, he should think, and not its cause. As for the remarkable condition described with so much care by Mr. Handley, it was not so certain that it succeeded the displacement forwards, nor was it clear that the retroversion of the uterus was the cause of that displacement. No doubt it was very reasonable to suppose that where backward displacement of the uterus existed a gravid tube would tend to come forwards, but if the tube came forwards through some other influence it

would push the uterus backwards. This case showed that marked clinical symptoms, pain, and hæmorrhages after abrupt cessation of the catamenia were a safer guide to the diagnosis of tubal pregnancy than was the position of the pelvic swelling.

Dr. Herbert Spencer suggested that the position of the tube may have been congenital; he had once found the tubes in front of the broad ligament in making a post-mortem examination of a new-born child. With reference to the sac at the end of the Fallopian tube, he did not think the name suggested (hæmodynamocele) a good one, as it certainly occurred apart altogether from blood; it appeared to be due to the blowing out of a sheet of adherent lymph by the secretion of the tube. He had found it quite free from the ovary in a case of dermoid tumour with pyosalpinx, and it probably was a stage in the formation of some cases of tubo-ovarian cysts. These terminal tubal sacs were well known, Mr. Bland-Sutton, Zedel, and others having published cases.

Dr. Griffith, referring to the position of the tubal sac, compared it to the position of an ovarian tumour under similar conditions, which would naturally lie in the utero-vesical pouch if the uterus was retroverted, as in this case, and pointed out that the wall of a hæmatocele must include the surface of the organs enclosing it.

Dr. Cuthbert Lockyer mentioned that he had recently observed the same relationship between gravid tube and uterus. In his case the patient first came under observation some weeks after rupture of the tube, and on examination the uterus was retroflexed with an irregular mass attached to its fundus. The case was not urgent, and operation was postponed for several weeks, during which time the fundus came forwards and the mass presented in the hypogastrium. On opening the abdomen Dr. Lockyer found the fundus capped by a large hæmatocele with which the right tube was incorporated. The sac was large enough to cover the entire fundus and part of the anterior wall of the uterus. This unusual situation for a hæmatocele was attributed to the fact that at the time of rupture the fundus uteri lay in Douglas's pouch.

FIBROID OF BROAD LIGAMENT ASSOCIATED WITH AN OVARIAN CYST.

Shown by Alban Doran, F.R.C.S.

(With Plate XIV.)

Two years ago I read before the Society a short treatise on fibroid of the broad ligament.* It was based on a case where I removed a large tumour of this class, distinct from the uterus. The relations of a growth so bulky are sometimes confusing, and in this instance it must have taken long to grow, so that some authorities might contend that it was originally uterine, but had slowly, though completely, separated itself from the uterus. The present specimen is relatively small, yet it was widely separate from the uterus. There can be no doubt of its origin elsewhere than in that organ, and so far it is highly instructive. There remains a second feature of interest, namely, its clinical relation with an ovarian cyst, a new growth of an entirely different type.

E. G—, aged 44, single, was admitted into my wards at the Samaritan Free Hospital on July 9th, 1901. For over eight months œdema of the lower limbs had been observed; in March, 1901, the abdomen began to swell. Mr. H. D. Stewart, of Redcliffe Gardens, sent her to the out-patient department of the hospital, where Dr. Lockyer examined her and diagnosed ovarian tumour, ordering immediate admission.

The patient was healthy and naturally rather thin. The abdomen was greatly distended, and its walls were slightly œdematous. The girth at the umbilical level was thirty-seven inches. A fluctuating tumour extended from

* "Fibroid of the Broad Ligament, weighing 44½ lbs., removed by Enucleation; Recovery; with table and analysis of 39 cases," 'Trans. Obst. Soc.,' vol. xli, 1899, p. 173.

below to the epigastrium (ensiform cartilage to umbilicus seven inches, umbilicus to symphysis pubis eight and three-quarter inches). There was distinct resonance in both flanks. The cervix was pushed up close to the pubic arch. A smooth convex mass came down low in Douglas's pouch and filled the right fornix. The period occurred about every twenty-five days; the show was moderate. Metrorrhagia, probably the result of examination, occurred a week after the last period; no intermenstrual hæmorrhage had ever occurred before.

The œdema of the legs was extreme, the skin very erythematous, and rest in bed did not reduce the swelling. The urine was very clear, and of a golden yellow colour, sp. gr. 1024, acid and distinctly albuminous. The patient had suffered from scarlet fever sixteen years ago, and never from any other illness. The tongue was clean, the bowels opened naturally, and there was no pain during defæcation. The temperature never exceeded 98·2°; the pulse was 60, small and regular. There was no history of any kind of abdominal pain.

There could be no doubt that the tumour in the abdomen was ovarian. The pelvic swelling was naturally taken for a tumour of the opposite ovary. It seemed to fluctuate, but, owing to its position, it could not be accurately defined. There could be no doubt that it pressed on pelvic structures; hence, probably, the œdema. Malignancy seemed possible, but evidence on this point was not by any means conclusive. Double cystoma, perfectly innocent, often gives rise to much œdema when the smaller tumour is pressed down in the pelvis by its fellow.

I operated on July 18th, with the assistance of Mr. Butler-Smythe. The patient was first placed in the horizontal position. A silvery white cyst wall was exposed on making an incision through the parietes, which, though thin, were very vascular. Ten pints of chocolate-coloured ovarian fluid were removed by tapping. I had to break down numerous septa, and there was difficulty

for a time in delivering the collapsed cyst, owing to a solid oval tumour closely attached to it below.

I found that the cyst had developed in the left ovary; the right ovary and tube were quite normal. The solid oval tumour lay in the left mesometrium, or portion of the broad ligament below the attachment of the ovary, and invaded part of the mesosalpinx, so that the entire left broad ligament formed a capsule for the solid tumour, excepting a portion connected with the cyst. The inner half of the left Fallopian tube ran in this capsule, the sigmoid flexure being associated with it posteriorly. This solid tumour was entirely free from the uterus, which bore two minute subperitoneal myomata on its fundus. The uterus had been pushed up by the solid tumour, which was displaced towards the right by the cyst.

I cut into the capsule of the solid tumour,—that is to say, into the left broad ligament. Enucleation proved very easy, as the tumour lay in a bed of loose connective tissue, quite unconnected with the uterus or with the ovarian cyst. Large vessels coming from below, evidently dilated branches of the uterine artery, required ligature. The pelvis was elevated for the rest of the operation. The ovarian pedicle, which had been clamped during the enucleation, was now ligatured in the usual manner, then much of the capsule was trimmed away, and its anterior and posterior layers sewn over the stump of the ovarian pedicle, as is often done in hysterectomy. The uterus and the right appendages now fell back into the pelvis; the sewn-up capsule of the solid tumour and the ligatured pedicle of the cyst did not cause much displacement of the structures left behind. The sigmoid flexure lay very close to the cut edge of the capsule, but was not kinked. Some fluid was mopped out of Douglas's pouch and the abdominal wound closed.

By the morning after the operation the œdema of the legs and the albumen in the urine had entirely disappeared. No symptoms of parametritis developed, though

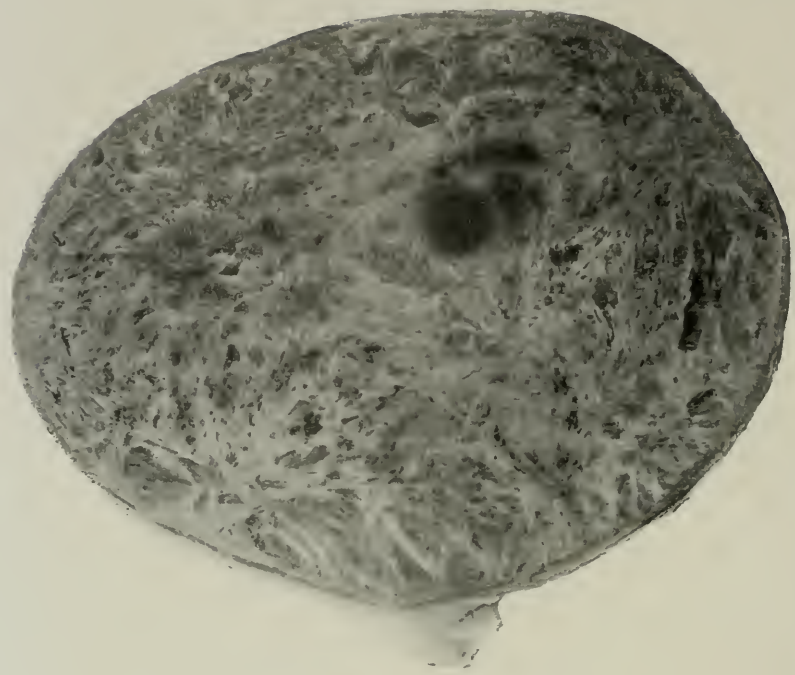

Fig. 1.

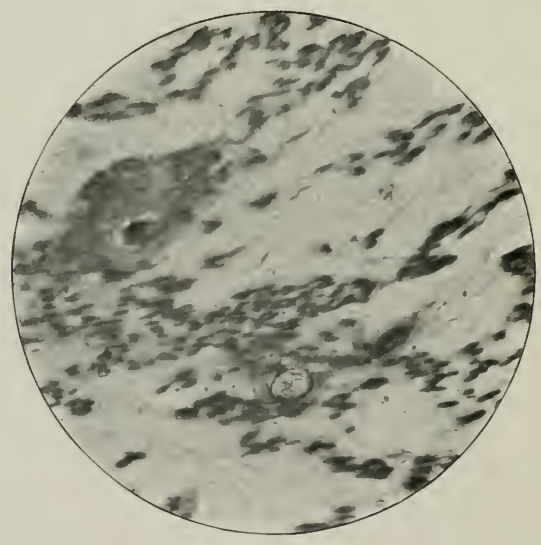

Fig. 2.

Illustrating Mr. ALBAN DORAN's Specimen of Fibroid of Broad Ligament associated with Ovarian Cyst.

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DESCRIPTION OF PLATE XIV.

Illustrating Mr. Alban Doran's specimen of "Fibroid of the Broad Ligament associated with an Ovarian Cyst."

Fig. 1.—Showing the cut surface of the tumour. Fibrous bands are seen running in all directions; between them are spaces full of mucoid tissue. There is also a conspicuous area of extravasated blood and numerous smaller extravasations, some punctiform. A torn shred from the capsule is seen; there was no pedicle.

Fig. 2.—A section of the tumour seen under a high power, showing mucoid tissue with bundles of plain muscle-cells.

much of the pelvic cellular tissue had been unavoidably disturbed and handled. The patient was in good health on October 14th.

The ovarian cyst.—The cystic tumour of the ovary weighed 5 lbs. 4 oz., and contained over ten pints of chocolate-coloured ovarian fluid. It was very multilocular; some of the cysts were small, and contained glairy, white, mucoid matter. In short, it was a common multilocular glandular cyst, and, without doubt, it had developed quite independently of the solid tumour.

The solid tumour in the broad ligament.—This specimen has been examined by Mr. Shattock at the College of Surgeons. It was heavy for its size, weighing 2¼ lbs. In form it was oval; it measured in long diameter (antero-posterior) five and a half inches, vertically three and three-quarter inches, and horizontally four and a half inches. The surface was perfectly smooth, and of a uniform pale red colour. There was no pedicle; large vessels entered its substance from different parts of its capsule. On section the periphery was seen to consist of firm, apparently fibrous tissue, passing without definite demarcation into a loose fibrous meshwork, with transparent substance filling the spaces, which constituted the substance of the tumour. Numerous foci of extravasated blood were detected; one, which shows well in the present specimen, measured half an inch in diameter. This specimen, now in the museum of the Royal College of Surgeons, consists of more than half the tumour. The cut surface appears as when fresh. Plate XIV, fig. 1, from a photograph taken under the direction of Dr. Hubert Roberts, shows the above-described appearances.

Mr. Shattock examined the tumour microscopically, and found that it was a true fibro-myoma. Well-developed plain muscle cells, arranged in bundles, were seen in great plenty mixed with still more abundant fibrous tissue, which in parts had undergone myxomatous changes (Pl. XIV, fig. 2). These fibroids of the broad ligament show all the histological variations of uterine fibroids, ranging

from the type of a pure fibroma to that of an almost pure leiomyoma.

The solid tumour bore some resemblance to that which was exhibited by Griffon before the Société Anatomique de Paris in 1899.* He styled his specimen a fibromyoma originating in the broad ligament; it caused no symptoms, and was not discovered until after the patient's death from some general malady. The patient was only thirty-two when she died; she had borne children and menstruated normally. The tumour was as big as a duck's egg, and was united to the right ovary by a distinct mesentery partly reflected on to the infundibulopelvic ligament, hence it was freely moveable. It was not degenerate as in my case. Though the tumour was small, the corresponding (right) ureter was slightly distended. Had a large uterine or ovarian tumour developed above it, pressure symptoms would soon have appeared, and the tumour itself, owing to interruption of its circulation by the still larger growth, would have undergone degeneration. The relative youth of this patient, thirty-two years, is significant, for fibroids of the broad ligament develop earlier than uterine fibroids, and, as in the cases where Sänger† and myself operated, may attain an enormous bulk in women under thirty.

Since I removed this solid tumour Dr. Galabin exhibited at the October meeting of the Society a fibromyoma of the broad ligament weighing 20 lbs., from a woman aged forty-six (p. 225). The uterus was left behind. Dr. Galabin's tumour was of precisely the same kind as my own, excepting that there were no external conditions to arrest its development, so that it attained very large proportions. Owing, no doubt, to external moulding, it had become very ovoid, its smaller end lying in Douglas's pouch.

In my memoir on 'Fibroid of the Broad Ligament' I

* "Fibro-myome aborigène du ligament large," 'Bulletins et Mémoires de la Société Anatomique de Paris,' Jan., 1899, p. 79.

† Author, loc. cit., tables, Cases 5 and 39.

discussed its pathology, and concluded that there appeared to be no doubt that fibroma or myoma may develop in the broad ligament quite independently of the uterus. In the present case there was no connection between that organ and the tumour, although there were two minute fibroids in the fundus.

Dr. William Duncan, in the discussion which followed the exhibition of Dr. Galabin's specimen, considered that I was incorrect in speaking of these broad ligament tumours as "retro-peritoneal." I maintain that they are essentially retro-peritoneal. Waldeyer rightly speaks of the broad ligament as consisting of two portions. The first is the now familiar mesosalpinx above the level of the attachment of the ovary. Below that point lies the mesometrium; in other words, Waldeyer confines that term (sometimes applied to the entire broad ligament) to its lower portion. Technically a broad ligament cyst between the folds of the mesosalpinx is retro-peritoneal, but clinically and pathologically it cannot be classed as retro-peritoneal, notwithstanding that it is anatomically outside the peritoneal cavity. With a fibroid of the broad ligament it is quite otherwise. It develops in the abundant connective tissue of the mesometrium. In the enormous tumour on which my paper on this kind of morbid growth was based, the mesosalpinx was not invaded on either side. The tumour which I exhibit this evening lay almost entirely in the mesometrium; its upper part just invaded the limits of a mesosalpinx, hypertrophied through its association with a multilocular cyst. The anatomy of the mesometrium is well known. Its anterior layer is very short as it turns upwards, becoming continuous with the parietal peritoneum lining the back of the pubes. Its posterior layer is much longer, going downwards and backwards as the anterior layer of Douglas's pouch. In the space formed by the parting of the layers lies much connective tissue—parametrium, as it is sometimes called, continuous with the same tissue in the back of the pelvis and in the loin. But it is in this essentially retro-peri-

toneal tissue that broad ligament fibroids develop. They stand to cysts of the mesosalpinx in the same relation as retro-peritoneal abdominal tumours, such as Mr. Marmaduke Sheild has described,* stand to cysts of the mesentery.

Cysts of the mesosalpinx and mesentery are anatomically, but not otherwise, retro-peritoneal; the other types under discussion are retro-peritoneal in every sense.

Dr. Spencer inquired if Mr. Doran thought that broad ligament fibroids were as liable as uterine fibroids to undergo degeneration. He had only seen one case of cystic degeneration of a true broad ligament cyst, though he had seen many originating in the uterus.

Mr. Alban Doran, in reply, stated that fibroids of the broad ligament were subject to the same forms of degeneration so frequent in uterine fibroids. Histologically these broad ligament tumours were identical with uterine fibroids, ranging from almost pure myoma to almost pure fibroma in type, a mixture of muscular and fibrous tissue being the rule. They were essentially mesometric, and did not arise in the mesosalpinx, though, like uterine fibroids, they sometimes invaded that fold. As a rule they avoided the mesosalpinx altogether, even when they attained a great size. No glandular elements, such as have been detected in uterine fibroids, were found in the sections cut by Mr. Shattock. Possibly these tumours were of Wolffian origin, but they seemed independent of the uterus from the first.

UTERUS WITH SQUAMOUS EPITHELIOMA OF CERVIX; REMOVED IN 1895; NO RECURRENCE IN 1901.

Shown by Dr. Lewers.

Dr. Lewers showed this specimen with a microscopic section for the purpose of continuing the report of the after-history of the patient. The lady was now in Australia, and he held in his hand a letter from her dated August 8th, 1901, in which she said she was quite well.

* "A Case of Large Solid Tumour removed with success from the Retro-peritoneal Space," 'Med.-Chir. Trans.,' vol. lxxx, p. 205.

The specimen, which also well illustrates the condition of the body of the uterus known as pyometra, was shown before the Society on that account in January, 1896.

It might be said that a letter from the patient was not entirely satisfactory as evidence that the cancer had not returned; but Dr. Lewers said such evidence was really not untrustworthy, and for this reason: he had seen a large number of vaginal hysterectomies for cancer in which, unfortunately, the disease had returned. In all such cases he had observed that the downward progress of the patient was rapid, pain always, and generally bleeding occurred, with rapid loss of weight, and soon marked cachexia. Now, this being so, it followed that in a case of the kind a letter from the patient in August saying she was quite well was at all events good evidence that no return of the disease had occurred three months before that date. The case also exemplified how difficult it was to give a prognosis as regards recurrence. If those present looked at the specimen they would see that the growth was a large and extensive one, and if the mere size of the growth were the important thing, recurrence of the disease might have been expected a few months after the operation. Yet in fact the patient was in good health in the August of this year, more than six years from the date of her operation.

PAPILLOMATOUS CYST OF AN ACCESSORY OVARY.

By Dr. Galabin.

The patient was aged 41. The tumour had been discovered about a year, was increasing rather rapidly, and at the time of operation reached about halfway from pubes to umbilicus, lying on left of uterus.

When the tumour was exposed it had the ordinary bluish appearance of an ovarian cyst, and was attached by the ovarian ligament to the corner of the uterus; but on the ovarian ligament, close to the angle of the uterus, another ovary was seen. This was removed with the tumour. The specimen showed that three quarters of an inch of ovarian ligament intervened between this ovary and the attachment of the ovarian ligament to the cyst. At the base of the cyst, close to this attachment, was a thickened portion, which, on section, showed old flattened corpora lutea. A section under the microscope showed that this consisted of ovarian tissue. The Fallopian tube was spread out over half the circumference of the cyst. The lining of the cyst was sharply divided into two parts, one thick and covered with papillæ—mostly small, but some dendritic,—the other thin and smooth. The thick and papillary portion was situated mainly near the attachment of the cyst, but sent out defined prolongations toward the opposite pole. There were some small papillæ on the outer as well as on the inner surface of the cyst, but no evidence of infection of the peritoneum elsewhere. The patient's mother had died two years before of carcinoma of the liver. The fluid contained in the cyst was yellowish, sticky like ovarian fluid, of sp. gr. 1020; it gave a copious precipitate with nitric acid, but had the unusual character that it gave no precipitate on boiling, but became gelatinised. The patient made a good recovery from the operation.

It was stated by some authorities that all papillary cysts of the ovary originated in the hilum of the ovary, and grew from the remnants of the tubes of the parovarium which entered that structure. Dr. Galabin doubted the correctness of this view, especially since the broad ligament cysts, whose origin was generally ascribed to the portion of the ducts of the parovarium in the broad ligament, were usually not papillary, but contained clear fluid of low specific gravity. In the present instance the position of the cyst at the pole of the ovary opposite to

its attachment appeared to show that it originated in the oöphoron proper.

Dr. Herbert Spencer said that he had a specimen which clearly showed that true oöphoritic cysts sometimes developed papilloma.

Mr. Alban Doran suspected that there was but one ovary from the first; its middle portion had undergone atrophy from some unknown cause, and its outer part had afterwards become the seat of a papilloma. Ovaries divided into two halves by atrophy of the middle portion of the organ were not rare. Mr. Doran, in respect to Mr. Bland-Sutton's remarks, noted that Coblenz's theory of the Wolffian origin of papilloma of the ovary and broad ligament had been supported by them (Mr. Bland-Sutton and Mr. Doran) on good evidence. Kossmann traced papilloma to detached portions of Müller's duct; he had not proved his theory, but it seemed at least plausible in respect to free or unencysted papilloma of the broad ligament.

Mr. Targett thought that the abnormality was due to a congenital malformation of the ovary. Owing to the elongated shape of the fœtal ovary a more or less complete subdivision of its substance might occur from kinking or torsion on its long axis. In the specimen exhibited the inner segment had developed into a normally shaped though small ovary, and the outer segment had become cystic. The cyst was bilocular, and the loculi appeared to have arisen from different structures: for one cyst was thin-walled, smooth, and had the usual anatomical relations of a parovarian cyst growing between the layers of the mesosalpinx; while the other was comparatively thick-walled, warty, and covered with distinct ovarian tissue. The latter was situated at the outer pole of the ovary in the vicinity of the ovarian fimbria, and though such cysts might contain a few sessile warts, yet they differed widely from the true papillomatous cysts originating in the hilum of the ovary. On microscopical examination these warts consisted merely of dense hyaline fibroid tissue, and had almost lost their epithelial covering. Hence they were not true ingrowths, but intra-cystic protrusions of the stroma or cyst wall.

CASE OF FIBRO-MYOMA OF UTERUS COMPLICATED WITH DOUBLE SALPINGITIS AND CARCINOMA OF CERVIX.

By Dr. Walter Tate.

F. P— was a single woman aged 36. Catamenia always regular but excessive. Patient had noticed enlargement of the abdomen for three months before her admission to St. Thomas's Hospital, and during the same period had suffered from profuse irregular hæmorrhage. On examination there was a hard fibroid tumour of the uterus reaching to within one inch of the umbilicus. The cervix was found low down and somewhat enlarged. The cervical canal was excavated and its wall irregular, and the seat of a friable growth, which bled very freely on examination. There was no evidence of any thickening in the situation of the broad ligament, but the tumour was quite fixed in the pelvis. Whether the tumour was fixed in the pelvis owing to its size or owing to inflammation around it was not ascertained. It was decided to remove the tumour by the combined method.

On August 15th, 1901, the patient was anæsthetised, and an incision was made through the vaginal mucous membrane round the cervix. The bladder was separated off the front of the cervix, and the lower part of the broad ligament, including the uterine arteries, was ligatured, and the cervix freed. A temporary gauze plug was then packed round the cervix and the abdomen was opened. Some coils of intestine adherent to the posterior surface of the tumour were separated, and also some firm adhesions of the tumour to the posterior pelvic wall opposite the sacral promontory. The uterine appendages of both sides were adherent, and after detaching them from the back of the broad ligament and pelvic wall the tumour was separated and removed through the abdominal wound. The left ovary and tube were removed with the tumour, the

right ovary was left. The pelvis was then douched with sterilised water, the abdominal wound closed, and a fresh gauze plug placed in the vagina.

The patient made an uninterrupted recovery, and was discharged from the hospital on September 11th.

Parts removed.—The whole cervical canal showed extensive ulceration extending nearly up to the internal os. There were two fibroids in the anterior wall, one as large as a tennis ball, the other a little larger. In the posterior wall of uterus was another fibroid, nine and three quarter inches in circumference. The left Fallopian tube was thickened and œdematous. A microscopic examination of the diseased cervix was made by Mr. Shattock, who reported it to be a squamous epithelioma.

SLOUGHING FIBROID OF THE LEFT UTERINE CORNU; ABNORMAL RELATIONS.

By Alban Doran, F.R.C.S., and Cuthbert Lockyer, M.D.

(Received October 3rd, 1901.)

(With Plate XV.)

(*Abstract.*)

The specimen was from a single woman æt. 30, subject for a month to symptoms of pelvic inflammation with fever. There was an irregular moveable mass in the left fornix, rising into the left iliac fossa, and connected with a small anteflexed uterus. Mr. Doran performed supra-vaginal hysterectomy, removing the uterus and tumour with the left appendages; the right tube and ovary were spared. The patient recovered. The tumour, five inches in long diameter, was much larger than the uterus, projecting outwards rather than upwards from that organ. It was a true fibro-myoma in a necrotic condition, and adhered to intestine and omentum at its blunt-pointed outer extremity. This degenerative change apparently accounted for the febrile symptoms. At first sight the tumour simulated a fibroid in an undeveloped uterine cornu, but the Fallopian tube and ovarian ligament arose posteriorly, and not externally, and were attached to a deep groove between the uterus and the tumour. The left round ligament arose from the under surface of the tumour somewhat posteriorly, passing under it and forwards to the inguinal canal. A tumour with somewhat similar relations to a uterus much smaller than itself has recently been figured without any clinical history by Doederlein in Küstner's 'Kurzes

Lehrbuch der Gynäkologie' (fig. 146). This outward growth of a fibroid of the cornu without outward displacement of the corresponding tube and ovary is very unusual. The sloughy state of the tumour demanded its removal, and the uterus could not possibly be separated from a growth of this kind, so that it was also removed.

In text-books it is justly taught that in a case of any tumour of the Fallopian tube the round ligament will lie internal to the tumour, which is clearly situated in the appendages entirely outside the uterus. On the other hand, in a case of tumour of an undeveloped uterine cornu the round ligament, and also the tube and ovary, will lie external to the tumour which is interposed between them and the uterus.

When a fibroid tumour develops in a normal cornu the displacement of the tube and round ligament is less regular. The round ligament lies more or less external to the tumour, and always anteriorly. The uterine attachment of the tube is displaced more or less outwards, and lies more or less on the anterior or posterior aspect of the tumour, owing to the irregular growth of the latter, which rotates the attached structures backwards or forwards.

In the following case a fibroid developed without doubt in the left cornu, and grew very markedly outwards in the direction of its horizontal axis. The dislocation of the attached structures was very unusual. The Fallopian tube arose from the innermost limits of the tumour, quite posteriorly. The round ligament was carried a little outwards, but sprang from the inferior-posterior aspect of the tumour. Lastly, the tumour itself, though not large, greatly exceeded in size the uterus.

D. G—, aged 30, single, was admitted into Mr. Alban Doran's wards in the Samaritan Hospital on April 9th, 1901. Her physician, Dr. John Williams, of Connaught Street, W., sent in the following note:—"She came to see me three or four weeks ago, saying that she was

unwell, and had dysmenorrhœa, and I gave her belladonna and bromide. Next day she had a temperature of 101° or more, with pains two or three inches internal to the left antérior superior spine, and she was suffering from constipation. She said that she had caught a chill two or three days before. I regarded it as ovaritis, and treated it with counter-irritation, rest, aperients, and hot water injections into the vagina and rectum. Two evenings later the temperature rose to 102°; it came down to normal in a week. As the pain persisted I examined the abdomen, and found a swelling at the seat of pain. If it is a neoplasm I think it must be inflamed, but that you will decide." This diagnosis, it will be seen, proved correct.

Mr. Doran had seen the case on March 27th, and noted down—"An irregular moveable mass in the left fornix. It rises into the left iliac fossa. Right fornix free. Uterus small, anteflexed." The mass was tender on touch.

On admission the mass was hardly tender at all on touch, but had distinctly increased in size. The uterus was now retroflexed; the sound entered two and a half inches, the uterus falling back directly the sound was withdrawn. The precise connection of the irregular mass with the uterus was not very clear; as moving the uterus caused pain, bimanual palpation without anæsthesia could not be satisfactorily carried out.

The period, about three years before admission, became very free and very frequent, remaining so for about twelve months; from then until the present illness it had been regular, appearing every four weeks, with much pain and moderate show. There was no history of any serious illness.

A tumour clearly existed, most probably a fibroid, but the case was somewhat obscure, so Mr. Alban Doran operated on April 18th.

The patient was placed in the Trendelenburg position. The omentum and two coils of small intestine adhered to

the apex of a conical tumour of a dull yellow-brown colour in the left iliac fossa. Otherwise the peritoneum and abdominal viscera were normal; the tumour lay too far back to allow of parietal adhesions. The mass was drawn up after separation of the omental and intestinal adhesions; it was continuous internally with the uterus, and its apex was directed outwards, not upwards. The left round ligament, very thick, sprang from its inferior aspect almost posteriorly, passing forwards under the growth. The left tube and ovary were attached to its back part. The right appendages and round ligament all lay in normal relation to the uterus.

The parts were removed by retro-peritoneal hysterectomy; the right ovary was left behind with part of the tube. Owing to the singular form of the tumour it was not clear, even when the left round ligament and appendages were separated after ligature, whether it arose from an ill-developed left cornu, or was, as it proved to be on further examination, a tumour in a normal left cornu which had taken on growth chiefly in the direction of its horizontal diameter, and which had originated in front of the insertion of the Fallopian tube, so that the left appendages were not dislocated outwards as is the rule in cornual tumours. The round ligament was distinctly dislocated, at its uterine attachment, outwards, yet not nearly to the outer extremity of the growth, as in cases of fibroid developed in a partially suppressed cornu.

The pointed end of the tumour was carefully covered with gauze throughout the operation, as a few drops of turbid fluid exuded from it when the intestinal adhesions were separated.

The stump of the uterus was small, but Mr. Doran had to dissect out two intestinal growths, of the size of haricot beans, from its substance.

The temperature rose to 102° on the evening of the second day, the pulse not exceeding 100; then it fell steadily, and recovery was uneventful. The patient was in good health two months after the operation.

Dr. Lockyer supplies the following description of the specimen :

The tumour is, as a whole, spindle-shaped with a constriction dividing it into a small right uterine portion, and a larger left neoplastic portion. On the true right cornu of the uterus are seen the stumps of the right tube and round ligament cut quite short. The position of the left Fallopian tube and broad ligament is remarkable. These structures pass from the posterior and lower aspect of the new growth, at the junction of that growth with the left uterine cornu. The left ovarian ligament comes off from the back of the sulcus dividing the uterus from the new growth. The left Fallopian tube appears to spring from the new growth, just external to the sulcus. The left round ligament has been displaced so as to appear on the postero-inferior surface of the growth, and vertically beneath the point of attachment of the Fallopian tube (Pl. XV).

Thus the left uterine appendages have been displaced backwards by an egg-shaped tumour which has clearly arisen from the left cornu, but in front of them, and has grown outwards, in a horizontal direction, in such a way that the tumour is quite free of the adnexa excepting where it is joined to the uterus. The length of the entire specimen from side to side is 13 cm. Its vertical measurement is 5 cm.; the maximum vertical circumference (which runs through the centre of the growth) is 20 cm. The uterus is dwarfed to some extent, and has been rotated on its vertical axis by the tumour growing from the left cornu. Therefore, on making a sagittal section, more of the right cornu is seen in front of the transverse line, whilst more of the left cornu lies behind that line. This gives the uterus a somewhat bilobed appearance; there is, however, no reason to suppose that the left cornu is improperly developed. The above sagittal section through the uterus and growth shows the cervical endometrium to be thickened; that of the cavity of the uterus is normal. A small,

spherical, healthy white fibroid, 0·9 cm. in diameter, lies on the left cervical wall, contrasting in colour with the large, livid, dead tumour arising in the cornu of the same side.

The growth from the left cornu, which makes up the bulk of the specimen, being far larger than the entire body of the uterus, felt in the recent state as though cystic. It measures 8·5 cm. in its long horizontal diameter, and 6·5 cm. in its short vertical diameter. In shape it is obovate, by its wide extremity it is attached to the left side of the uterus, whilst its pointed extremity is free. To the upper part of the free end are seen the remains of inflammatory adhesions, and the surface of the tumour around these adhesions is of a yellowish-green colour, suggesting an advanced degree of degeneration. At the attached extremity of the growth appear, posteriorly, the uterine adnexa as before described. Between its two extremities the growth is free from attachments of any kind. The sagittal section of the growth was made after hardening in Kaiserling-Pick's solution. No cysts were seen on section; the cyst-like elastic condition felt in the recent state was now seen to be due to a diffuse colliquative necrosis which had caused the growth to break down centrally, and which was spreading gradually towards the periphery. After hardening the central fluid coagulated to form a putty-like substance, which shades off gradually into dull livid tissue resembling frozen muscle. At its attached end the growth is seen to be provided with a capsule derived from the uterine, serous, and muscular coats, and it is here that the growth is most healthy in appearance.

Excepting for its unusual position there is nothing abnormal in the left Fallopian tube.

The left ovary contains small cysts and hæmorrhagic foci.

Microscopic sections of the growth show it to be a fibro-myoma; its central parts are too necrotic to stain with logwood, and stain but faintly with eosin; the com-

ponent structures of the tumour are here almost indistinguishable, the section consisting largely of opaque *débris*. A section near the periphery displayed the typical blending of fibrous tissue and unstriped muscle seen in uterine "fibroid" tumour, but these tissues showed signs of incipient degeneration.

The two features of interest in this case are (1) the cause of the feverish attack shortly before operation, and (2) the singular relations of the tumour.

Cause of the Rise of Temperature.

Intestine and omentum adhered to the apex of the tumour, and on their separation some turbid fluid exuded from the tumour substance. The recent trouble clearly had its focus at this point. Had the intestine after adhesion, through mere peritoneal irritation to the tumour, infected the tumour, or had the tumour become inflamed first, from some cause not evident, and set up local adhesions? Mr. Doran could not feel certain about this point on operative evidence alone.

Dr. Lockyer, after the examination of the specimen above described, considered that the condition of the growth itself accounted for the febrile symptoms before operation. For some reason, having to do probably with its blood-supply, the growth had died *en masse* within its capsule, and the centre of the dead growth had, moreover, liquefied to form a glairy opaque fluid, quite unlike pus. Such a condition is not dependent upon the presence of micro-organisms; and although pyogenic bacilli or cocci were not sought for, they probably were not present, the products of degeneration alone being capable of producing fever.

The amount of peritonitis present was confined to a small area of the size of a florin; it was plastic in character, produced adhesions to the omentum and bowel, and was due to the unhealthy growth having thinned its capsule at this spot, and thus, approaching the peritoneum, caused that membrane to exude a patch of adhesive lymph.

DESCRIPTION OF PLATE XV.

Illustrating Mr. Doran and Dr. Lockyer's specimen of "Sloughing Fibroid of the Left Uterine Cornu; Abnormal Relations."

The parts removed by hysterectomy.

Ut. Uterus. *Fib. t.* Fibroid tumour. *L. r. lig.* Left round ligament. *L. F. t.* Left Fallopian tube. *L. ov.* Left ovary. *L. ov. lig.* Left ovarian ligament. *Ad.* Site of adhesion to intestine and omentum where the tumour tissue was breaking down.

Illustrating Mr. Alban Doran's and Dr. Cuthbert Lockyer's Paper on Sloughing Fibroid of the Left Uterine Cornu; abnormal relations.

Engraved and Printed by Bale and Danielsson, Ltd.

The Relations of the Tumour.

Mr. Doran, in his description of the operation, noted what the tumour appeared to be at the time, and what it proved to be on further examination. He recently published an undoubted case of fibroid in an undeveloped cornu of a uterus unicornis, and exhibited the specimen before the Obstetrical Society.*

In two recent works a tumour of the present type will be found figured; in neither case is it described incorrectly as originating in an undeveloped cornu, but in neither does the author turn attention to its peculiar relations. Doederlein, of Tübingen,† gives a figure of a fibroid of this kind, presumably from his own practice. It is simply intended to illustrate "interstitial or intramural fibroids," in a chapter on uterine myoma in a text-book, and is thus described:—"Fig. 146. Interstitial fibroid well encapsuled (abdominal total extirpation)." The tumour lies entirely on the right of the uterus, except that it is encapsuled in uterine tissue, and, as in the present specimen, its horizontal diameter is proportionately very long. Unfortunately, neither the left appendages nor the left round ligament are represented, though the tumour is clearly connected with a well-developed uterus. The second case is figured in Cripps's 'Ovariotomy and Abdominal Surgery,' pl. xviii, and described as "Fibroid Tumour of the Uterus obstructing Delivery." The fibroid is encapsuled in uterine tissue, but otherwise lies entirely to the right of the uterus, as in the present and in Doederlein's case, but is not so disproportionately long in its horizontal diameter. The left appendages

* "Fibroid in Undeveloped Cornu of an Uterus Unicornis, from a Parous Subject," 'Trans. Obst. Soc. Lond.,' vol. xli, p. 295, and 'Brit. Med. Journ.,' vol. i, 1899, p. 1839 (with references to literature of the subject). See also Josephson, "Ueber die Neoplasmen der missgebildeten Gebärmutter," 'Archiv f. Gynäk.,' vol. lxiv, pt. 2 (1901), p. 376—a valuable essay on the subject.

† Küstner's 'Kurzes Lehrbuch der Gynäkologie,' 1901, p. 171, fig. 146.

"rose from the upper and front part of the mass;"* there is no further allusion to the extremely unilateral position of the tumour, which extended downwards and blocked the pelvis. This may be considered a more common and transitional form between an ordinary spherical fibroid, which, arising from the cornu, displaces the insertion of the tube outwards, and the type exemplified by the present specimen, where the fibroid arose in the cornu and grew outwards to a remarkable length, yet without much displacement of the uterine attachments of the Fallopian tube and round ligament.

It is highly probable that other tumours of this kind have been removed, but that their nature has been overlooked or misinterpreted.

Operative Treatment of the Case.

The somewhat obscure nature of the case, with a history of local inflammation, demanded an exploratory incision. Then it was discovered, as explained above, that the tumour was in an unhealthy condition, perhaps sloughy or suppurating. Its removal seemed the safer course, and the uterus could not be separated from it, so retro-peritoneal hysterectomy was performed, the opposite ovary being saved. As the stump of the uterus was small, the operation involved little trouble and not much risk. The adherent coils of intestine were healthy, and as none of the sanies from the tumour escaped into the peritoneal cavity no flushing or drainage was necessary.

Dr. A. H. N. Lewers said that, among other points of interest, the case described in the paper had an important bearing on the question of the mortality to be expected in cases of fibroid tumours of the uterus. It would be remembered by most of those present that Dr. Champneys had published statistics according to which the mortality of fibroids, apart from operation, appeared to be ·000138 per cent., or about three in two million cases. Now in such a case as Mr. Doran's, one

* Loc. cit., Case 83, p. 501; also C. Hubert Roberts, 'Outlines of Gynæcological Pathology,' fig. 72.

of sloughing subperitoneal fibroid which had already set up symptoms of pelvic inflammation with fever, it could not be doubted that, apart from operation, the case must have ended fatally. Leaving out of the question the other possible causes of death in cases of fibroids, was sloughing such a very rare thing? He had himself seen two cases comparatively recently. One of them was published in the 'Lancet' (vol. i, 1900, p. 444). The other was either the last, or one of the last, cases in which he had removed the appendages for uterine fibroid, an operation he had now abandoned in favour of hysterectomy. In that case tying the vessels in the pedicles appeared to have in some way cut off the vascular supply of a fibroid near the fundus, and caused it to slough. At all events no evidences of sloughing (fever, fœtid discharge, etc.) were present till the operation in which the uterine appendages were removed, and the operation itself was of quite a simple kind. The patient died within a week, and at the post-mortem examination one of the fibroids near the fundus was found to have sloughed. Dr. Lewers called attention to the frequency with which mucoid degeneration was met with in fibroids, and he would be glad to know Mr. Doran's views as to the relation, if any, between mucoid degeneration and sloughing.

After Dr. G. F. Blacker had joined in the discussion, Dr. Cuthbert Lockyer drew attention to the fact that the term "suppurating" fibroid hardly conveyed the correct idea of the condition of the tumour at the time of its removal from the body, inasmuch as suppuration implies the presence of pus and of pyogenic organisms, and such were not present in the tumour.

In reply to a question asked by Dr. Blacker as to the causation of the febrile condition of the patient, Dr. Lockyer thought that it was possible for a pyrexic state to result from the absorption of necrotic products in which no organisms could be found, and mentioned that this had been conclusively proved in the case of blood-clot.

The President asked if any cause had been found for the sloughing. He considered all sloughing fibroids necrobiotic in that more or less of the tumour died and a process of ulceration then began, the object of which was to cast out the dead piece.

Mr. Alban Doran regretted that none of the Fellows of the Society could offer any explanation of the abnormal relations. The tumour was certainly in the left cornu; the displacement of the left round ligament was very unusual, and seemed to indicate some malformation of the cornu. The term "sloughing" had been used for convenience in the title of this communication; there was not in this case the typical moist, fœtid gangrene seen in Dr. Lewers's case, where the tumour was in close touch with the uterine cavity. In the present case the

tumour and the cavity were far apart. The necrotic change probably came on because the shape of the tumour made its blood-supply liable to interruption. He believed that mucoid degeneration arose from similar causes, assisted by feeble circulation; this seemed certainly the case in two instances of uterine fibroid in his own practice. Hæmorrhage was severe and the tumour caused pain, rare in fibroid disease (the curette aggravated the trouble). Mr. Doran removed the uterus, without the ovaries, with great benefit to the patients, both of whom were delicate.

DECEMBER 4th, 1901.

Peter Horrocks, M.D., President, in the Chair.

Present—52 Fellows and 4 visitors.

Books were presented by the North of England Obstetrical and Gynæcological Society, the Edinburgh Obstetrical Society, Dr. Giles, and Dr. Bar.

Frank Edward Taylor, M.A., M.B., was admitted a Fellow.

The following gentleman was proposed for election :—
Wyndham Anstruther Milligan, M.B., C.M.Aberd.

CASE OF DECIDUOMA MALIGNUM.

(See Plates XVI, XVII, XVIII.)

Exhibited by Peter Horrocks, M.D.

L. B—, aged 48, was admitted into Guy's Hospital, under the care of Dr. Horrocks, on March 4th, 1901, suffering from hæmorrhage.

The history was as follows :

She had been married 27 years, her husband being alive at the present time. She had eight children born alive, two stillborn, and four miscarriages before the sixth month. Menstruation commenced at fourteen, was regular, occurring monthly. The period lasted on an average four days, and was always scanty. Before marriage she used to have pain for a day or two before the onset of the flow, and relieved by it, this being sometimes so severe as to make her lie up. She does not remember to have had any pain since marriage.

Patient says that her labours have generally been difficult, and that instruments have been used several times. The last full-time child was in November, 1896, and she thinks this was the easiest labour she has had. In December, 1898, she had a miscarriage of three months' standing. Since this date she has been quite regular, with no pain or excessive flow, till October, 1900, when the present trouble began.

On October 11th, 1900, patient being then a fortnight after her last period, was seized with a severe attack of flooding as she was about to do her washing, and had to go to bed. She remained in bed a month, during the whole of which time there was continuous hæmorrhage. She then got up, only to have a second flooding, which necessitated her again returning to bed, where she has remained ever since, with the exception of a few days in January. As the result of getting up she had another severe loss on January 4th, when, patient says, she lost a chamberful of blood. She has had slight hæmorrhage since then. With her first flooding, patient says she passed two masses of a dark red colour about the size of her fist, and she describes them as being like flesh. During her illness she has occasionally passed long clots of blood.

Since the last flooding, on January 4th of this year, she has had a discharge which was watery and of a greenish-brown colour, and exceedingly foul-smelling. Patient states that she has wasted considerably, and that she is about half the size she was before her illness began.

DESCRIPTION OF PLATE XVI.

Illustrating Dr. Peter Horrocks's specimen of Deciduoma Malignum.

Naked-eye appearance. The anterior half of the uterus has been removed, and the growth is seen at the upper part growing on the posterior wall and penetrating through the entire thickness of the muscular wall of the fundus.

Illustrating Dr. HORROCKS's Specimen of Deciduoma Malignum.

Engraved and Printed by Bale and Danielsson, Ltd.

DESCRIPTION OF PLATE XVII.

Illustrating Dr. Peter Horrocks's specimen of Deciduoma Malignum.

Microscopical section of the growing edge of the tumour (× 125).

a. Syncytium invading uterine muscle.
b. Discrete cells.
c. Muscular fibres of uterine wall.
d. Blood in an irregular space.

Illustrating Dr. HORROCKS's Specimen of Deciduoma Malignum.

Engraved and Printed by Bale and Danielsson, Ltd.

DESCRIPTION OF PLATE XVIII.

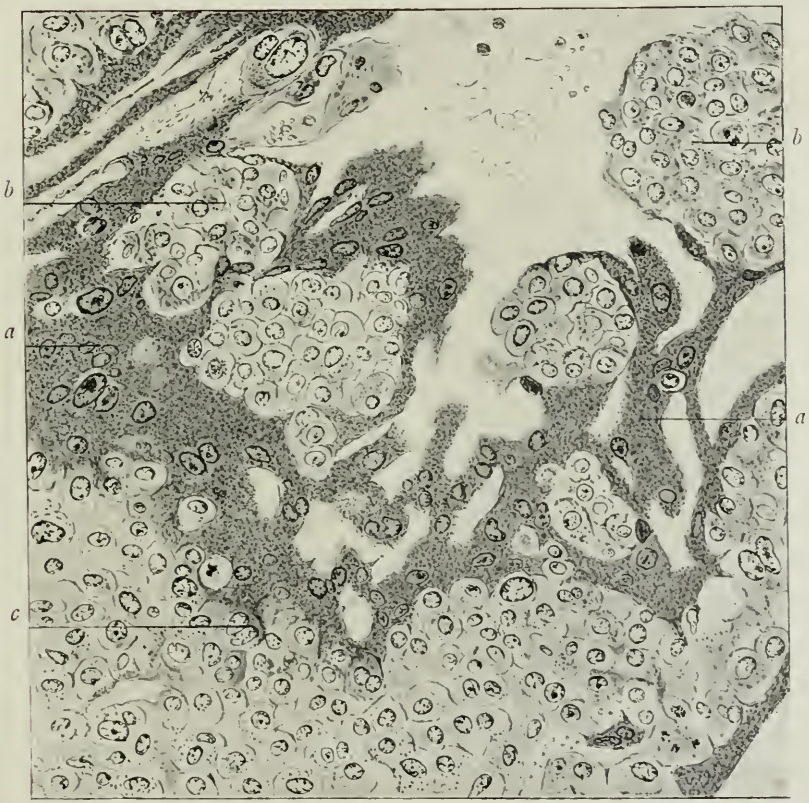
Illustrating Dr. Peter Horrocks's specimen of Deciduoma Malignum.

Microscopical section (× 365).

a. Syncytium forming in places an irregular network enclosing discrete cells.

b. Discrete cells.

c. Gradation between syncytium and discrete cells.



Illustrating Dr. HORROCKS's Specimen of Deciduoma Malignum.

Engraved and Printed by Bale and Danielsson, Ltd.

She has had no trouble in micturition, but her water lately has been thick and foul-smelling. She has always suffered from constipation, but this is no worse since the onset of illness.

For the last month she has been troubled with a cough and shortness of breath. She brings up a considerable quantity of yellow sputum, and on one or two occasions a small amount of blood.

On admission, patient was found to be thin and anæmic, presenting a marked cachectic appearance. The temperature was 99° F., the pulse 88, and the respiration 20.

The urine was acid and slightly cloudy; sp. gr. 1016; a trace of albumen, but no blood, pus, or sugar; urea, 1·4 per cent.

An examination of the chest showed rhonchi and moist râles all over both sides, but there was no definite evidence of growth.

There was nothing to be felt on abdominal palpation. On vaginal examination the cervix was found to be split deeply on each side, the lips being everted and enlarged. There were a few dilated follicles, giving the everted mucous membrane a shotty feel. But there was nothing in the feel of the cervix, or in the appearance as seen through a speculum, to suggest growth.

The cervix was freely moveable, and the fornices free. The body, though not very easily felt, was apparently enlarged.

Taking into account the history of bleeding, of foul discharge and of wasting, it appeared most probable that there existed a malignant growth of the body of the uterus, and the patient was advised to submit to an exploration.

Operation.—The patient was anæsthetised on March 8th, and placed in the lithotomy position. The cervix being seized and brought down with volsella, a transverse incision was made through the anterior fornix, and the bladder separated from the cervix. This latter was then divided in the median line with scissors, to allow of ready exploration of the interior of the uterus with the finger. An

examination then showed a rough, uneven surface on the posterior wall, from which some small pieces of tissue were readily detached. These appeared to the naked eye to be composed entirely of fibrinous material. In this material, removed by a curette, nothing very obviously like growth was found. Bleeding, however, was profuse, and a vaginal hysterectomy was decided on.

Examination of parts removed.—An examination of the uterus after removal showed it to be considerably enlarged. It was four and a half inches long, and the fundus was very bulky. On making a section of the organ, a soft, pultaceous mass was cut through in the fundus, apparently necrotic in its greater part (Pl. XVI). It was undoubtedly a mass of growth. It extended right through the wall, though the peritoneum over it was shiny, and had nowhere been perforated by the growth.

On the posterior wall of the uterine cavity was a rough, uneven, slightly raised surface, to which were attached small masses of fibrin and blood-clot. It presented somewhat the appearance of a placental site.

On cutting into the uterus at this point, it was difficult to say with the naked eye whether it was infiltrated with growth or not.

The specimen was referred to a committee, consisting of Dr. Horrocks, Mr. Bellingham Smith, Mr. Bland-Sutton, Mr. Targett, Dr. Spencer, Mr. Alban Doran, Dr. Eden, and Dr. Griffith (convener).

Microscopical Appearance of Growth.

By G. Bellingham Smith, M.B.

A section made through the raised, irregular surface on the posterior wall of the uterine cavity shows an infiltration with growth. This presents the characteristic feature of the so-called deciduoma malignum—namely, the syncytium. This occurs in the form of irregular masses of protoplasm, or as a fine reticulum, enclosing sometimes blood-cells and

detritus, more often masses of discrete cells. Very often in the specimen the appearance of chorionic villi is roughly simulated, a thin layer of syncytium enclosing a number of cells (Pl. XVII, XVIII).

At the edge of the growth invasion of the uterine wall is seen, partly by the syncytium, partly by the discrete cells; and the tendency to invasion of the venous sinuses, with subsequent engrafting of the malignant growth on the walls of these spaces, is also shown.

The discrete cells resemble decidual cells less in this specimen than they do in many specimens of deciduoma malignum.

Their protoplasm and nuclei very closely resemble the protoplasm and nuclei of the syncytium, and it seems hard to resist the conclusion of Dr. Whitridge Williams, that they are derived from the syncytium itself.

Of ground substance or reticulum there is practically none; and the same may be said of blood-vessels and vascular spaces proper. Numerous blood-cells are, however, to be seen lying between the cell masses, or enclosed in the syncytium.

There are no chorionic villi to be found anywhere in section, such as have been described by Marchand, Haultain, etc. The appearances presented point to the growth as being derived from the syncytium of the chorionic villi, and as being, therefore, a chorionic epithelioma.

The mass in the fundus of the uterus presents the same features as are seen in the one above described.

Report of Committee on Dr. Horrocks's Specimen of Deciduoma Malignum.

The microscopical characters of this specimen correspond with those of the majority of such growths, the tissue consisting of (1) masses of syncytium showing in places marked vacuolation, (2) large numbers of polymorphous cells with large nuclei, and (3) numerous hæmorrhages. We therefore regard it as belonging to the class of malignant neoplasms designated deciduoma malignum.

The patient had a flooding in October, 1900, which was considered by her and her medical attendant to be a miscarriage; but for the clear proof of this sufficient evidence is not forthcoming. There is no microscopical evidence of recent pregnancy, and the area described in the report as placental site shows evidence of the malignant growth, but no placental tissue. While, therefore, it is not possible to prove or disprove the fact that pregnancy occurred in October, 1900, we do not find the evidence forthcoming sufficient to justify us in definitely associating the malignant growth with a miscarriage at that date.

PETER HORROCKS.
HERBERT R. SPENCER.
ALBAN DORAN.
T. W. EDEN.
G. BELLINGHAM SMITH.
J. H. TARGETT.
W. S. A. GRIFFITH, *Convener.*

NOTES ON TWO FATAL CASES OF PERNICIOUS VOMITING IN PREGNANCY.

By JAMES L. MAXWELL, M.D., Tainanfoo, Formosa (introduced by Dr. W. S. A. Griffith).

THE two cases noted below have come lately under my notice, the second one being under my own immediate care. The affection itself is rare in its fatal form, and both cases occurred within a few months of each other, in a place where the married European ladies could be counted on the fingers of one hand. For these reasons, and because in some points these cases differ a good deal from text-book pictures, I think they are not unworthy of being recorded. There are few cases which we feel more depressed over losing, and as the probabilities

that one person not practising as a gynæcological specialist will have more than one case to treat in his lifetime are small, it behoves us to learn as much as we can from the failures of others.

Case 1.—Mrs. A—, aged 37, 3-para, having never suffered severely in her pregnancies from vomiting. She became pregnant again, and failed to recognise the fact, considering the vomiting which came on in the beginning of the second month as a condition of malarial dyspepsia. The vomiting became steadily worse, till she not only vomited all food, but vomited also at times when not taking food. Herself a fully qualified doctor, she refused to ask any outside help, and as with all the vomiting she wasted comparatively slightly her husband was not particularly alarmed about her. This went on until the third month, the patient administering nutrient enemata to herself. Then very slight jaundice set in, and later she began to get delirious, and at last a doctor was called in, who found her then commencing to abort. With the beginning of the abortion the vomiting ceased completely, and she ate ravenously. Her pulse, however, continued very rapid, she lost a good deal of blood over the abortion, which was slow in coming away, and she died three days later of cardiac syncope. During the last few days of her illness she had everything that could be desired in the way of skilled nursing and medical attention. I should have mentioned that throughout her illness her temperature was irregularly but never greatly raised, and during the last few days she complained very much of dimness of vision from a mist before her eyes. She was quite sensible up to the moment of her death.

Case 2.—Mrs. B—, aged 32, 2-para. No history of previous vomiting in pregnancy; labours normal and very easy.

I was asked to see this patient three weeks before her death, owing to the continued vomiting from which she

suffered. Her condition was then thus :—Healthy-looking, vivacious women, well nourished, and with no signs of wasting about her. Slight tinge of jaundice, liver distinctly enlarged one and a half fingers below costal margin. Pregnancy said to be, and from abdominal examination appeared to be, about the end of the third month. Pulse 132 when up, 110 when lying in bed. (I had, unfortunately, no previous knowledge of the patient or of what her pulse rate in health was.) Urine : no albumen, trace of bile ; no leucin or tyrosin. Patient complained that she vomited everything she took, and in addition frequently vomited between times. I recommended her to be confined to bed, dieted her, and suggested strongly that I should get her a nurse to start regular rectal feeding. As, however, she neither seemed nor felt very ill, at her urgent request I gave way on this last point till I should have seen her again in two or three days' time.

Two or three days later I saw her again ; the vomiting was less, the jaundice distinctly less, and the liver decreasing in size. The pulse was still as rapid, about 110. A few days later she was decidedly better, except that the pulse was still as rapid, and I gave permission for her to be moved to a steamer and taken to her home. I did not see her again (she lived more than three miles away), as I heard that she was much better, vomiting having almost completely stopped, till a week later, when I was sent for hurriedly one evening. I was then told that she had been very well and vomiting apparently stopped until two days previously, when she got up and began to pack —a thing I had most strenuously warned her against. This brought on the vomiting again, which had been every hour or two night and day since. That afternoon she began to have labour-like pains, and believed she was about to abort.

I was struck with the change in her ; still no wasting to speak of, but the jaundice had returned, and she had a pinched, hollow-eyed expression I had never seen in her before. Pulse was over 120, and she com-

plained of occasional attacks of palpitation. She was evidently about to abort, but the cervix, which was very far back, the uterus being sharply anteverted and anteflexed, was very difficult to reach, and would not admit the finger. As it was then evening I left a nurse with her for the night, hoping that by the morning the cervix would be sufficiently dilated to allow me to empty the uterus. In the morning, however, despite a night of considerable pain, the cervix appeared still contracted, and the patient was very decidedly worse; pulse about 130. I therefore gave her an anæsthetic and proceeded to dilate the cervix with Hegar's dilators. I did this with the greatest care, and having had considerable practice in the use of dilators, I can hardly blame myself that before the cervix was dilated sufficiently to admit one finger it had begun to tear laterally, and evidently opening a vein threatened to cause the patient to lose a good deal of blood, which in her condition I thought was not wise to allow. I therefore rapidly broke up the ovum, tearing out a piece of the membranes, and packed the cervix with gauze, packing the vagina also. This completely controlled the bleeding, which altogether was quite trivial. Patient took the anæsthetic very well, and from that time till her death, forty-eight hours later, she did not vomit once, and began to take food well. The vaginal packing I removed the same evening without further bleeding, and left, well contented with the results.

The following day, after a good night, she looked and felt better, but complained of dimness of vision; she was not at all anæmic; her pulse, however, kept very fast—over 130. I removed the packing from the cervix without bleeding, and she had a hot douche, which apparently set the uterus contracting again. She was taking food well.

Early the next morning I was sent for, as she had had a bad night. The rest of the abortion was just coming away, and came with practically no bleeding; she herself, however, was very much worse. The dimness of vision had increased, so that she could see no one for the mist

in front of her eyes. She still took everything that was given her without vomiting, but the pulse was very rapid, almost uncountable, and she complained of very bad palpitations, only partially relieved by hot cloths to the cardiac region.

She lasted some four hours longer, evidently sinking, and then died suddenly of cardiac syncope. She was quite sensible up to the moment of her death.

Now in regard to these two cases. The first one was only seen by an outside doctor when too late to save the case, so we need not consider its treatment. My case was seen by me three weeks before she died, and had abortion then been induced I have no doubt the lady would be now alive and a terrible catastrophe averted. But what could I do? I was already well up in the text-book descriptions, and I need hardly say renewed my acquaintance with them. What did I gather from them? Well, I pictured a poor woman wasted to a shadow, jaundiced in the extreme, with either a very much enlarged liver or one which percussion would hardly reveal to be present at all; sordes on the lips and teeth; urine containing albumen and crystals of leucin and tyrosin; a woman of a neurotic type, probably of a nervous stock, and probably a primipara; anæmic to a degree, probably with a high temperature "betokening a fatal issue," and quite delirious.

What did I find? In my own case, and so in the first, though perhaps less strongly emphasised, a comparatively healthy-looking woman, hardly if at all wasted, a mere tinge of jaundice, little or no fever (in my case none), a liver differing in size but slightly from the normal. In the first case slightly on occasion, in my own case never, delirious. Urine (I have no record of the first case) free from albumen and without leucin or tyrosin. The first case decidedly of a phlegmatic type; the second, though bright and lively, hardly deserving of the word neurotic; certainly not of a nervous stock. Both multiparæ.

Am I to be blamed that I did not immediately insist on emptying the uterus, especially of what turned out to be to all appearances a healthy ovum?

One or two marked features strike us as we look back on the case. These are the very marked rapidity of the pulse, wholly out of proportion to the *apparent* gravity of the case, and then towards the end the mistiness of vision. We cannot help feeling, looking at these together, that the disease in these cases was a pure toxæmia—wherever the toxin came from—affecting particularly the cardio-motor centres; and then, as the case draws to a close, the other nervous structures, such as the retina. Certainly in my case anæmia had nothing to do with the mistiness which appeared slightly before, but very definitely some twenty-four hours or more before death. Then I cannot but remark how easily the vomiting was finally stopped by the commencement of abortion, showing so evidently what the treatment should have been earlier. Lastly, how should the uterus be emptied? Here again the text-books preserve a dignified silence. Certainly dilatation and immediate extraction is ideal for a woman to whom every particle of strength is precious, and who, perhaps kept from sleeping by sickness previously, is now threatened by being exhausted still more by the pains of a tedious abortion. Yet I certainly cannot hold my method up as satisfactory, and I do not believe that yet more practice would have enabled me to dilate that cervix without splitting it; I do not know. Only I know that I seem to have gone wrong with the case at every turn, and I publish it rather as a warning to others who have not yet had the misfortune to be called on to treat a similar case. Luckily at home you can turn to others in your difficulties, while we who have to be a law unto ourselves must be content with the help of such hopeless things as text-books.

The PRESIDENT referred to the distinction drawn by the late Dr. Matthews Duncan between the vomiting *of* pregnancy—that is the ordinary physiological vomiting that occurs in most cases

of normal pregnancy from the second to the fourth month—and the vomiting *in* pregnancy, which is caused by something that would act even if the woman were not pregnant. In every instance of obstinate vomiting when a woman was pregnant, especially with wasting, it was nearly always an instance of vomiting *in* pregnancy, the latter perhaps aggravating it; and in the absence of post-mortem evidence he should not be prepared to admit that these two fatal cases were due to pregnancy alone. He mentioned a case of obstinate vomiting he had seen with Dr. Prangley, of Norwood, where there was great emaciation even at the fourth month of pregnancy; the uterus was cleared out and the patient certainly seemed better for a short time, but she relapsed and developed nerve symptoms, and was seen by Sir W. Gowers, and finally died from cerebral disease.

SPECIMEN OF TUBAL ABORTION WITH RUPTURE OF TUBE.

Shown by Dr. Amand Routh.

The patient was a lady aged 27, married three years. She had a full-time child, September 10th, 1899, and aborted on December 16th, 1900, when eight weeks pregnant. This was followed by subinvolution and endometritis, and some prolapsus uteri.

She was, however, quite well in April, 1901. On October 5th, 1901, she called upon me, saying that her last period on September 23rd arrived punctually, but only lasted two days instead of five. After a train journey on September 30th she noticed a spot of blood, and also on the following day, October 1st, and on October 4th. Since September 30th she had had a feeling of pelvic discomfort and desire to lie down.

On examination I found the uterus larger than normal and the cervix soft, and considered that she was probably a few weeks pregnant, and had had perhaps some intrauterine hæmorrhage. I could detect nothing abnormal in the pelvis.

The patient returned home into the country, and kept strictly to bed for ten days under the care of her local medical attendant, without further loss of blood.

On October 29th the patient's husband telephoned through to say he had come up from the country, and described to me a severe attack of syncope which his wife had had during the night. His description sounded like that of a typical case of tubal rupture, so I requested him to ask the local doctor to meet me there during the afternoon. When I saw the patient she had had another attack of syncope, and was evidently dying of internal hæmorrhage. Consent was readily given for an immediate operation. We were unable to get another doctor, there was no trained nurse, and my assistant was the husband who was a medical student, but whose first operation this was. A lady—a neighbour—acted as nurse. There was unfortunately very little chloroform.

At the operation the left tube was at once found to be enlarged and ruptured. An artery was spurting from the margin of the tear. The shaggy chorion and some partly decolourised clot were adherent to the rupture in the tube; the embryo was loose in the peritoneal cavity, which was full of dark blood, and some blood-clot was escaping from the dilated fimbriated end of the tube which could have admitted a large cedar pencil. I ligatured off the tube, and then found some dark venous blood was welling up from the base of the broad ligament. I endeavoured to find the place, but failed to do so, and ligatures deeply placed at each end of the broad ligament failed to arrest the bleeding.

Just then the anæsthetist said he had no more chloroform, and that the patient was extremely bad. I therefore clamped the left broad ligament as low as I could at the uterine and pelvic ends with two broad ligament clamps, plugged the left posterior quarter of pelvis with gauze, and rapidly closed the wound.

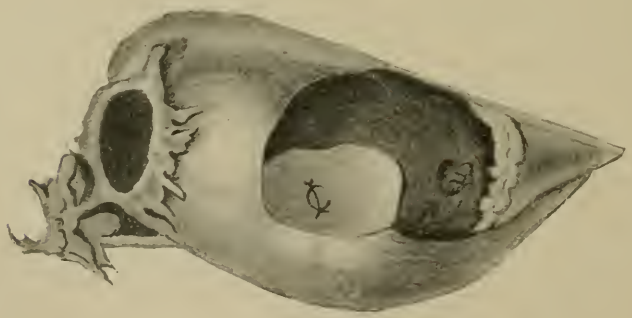
The patient was apparently moribund, but rallied well with saline rectal injections. In forty-eight hours I

removed the clamps, and in another forty-eight hours the gauze, and I am happy to say that she is now convalescent; a small sinus, however, still remains.

The following is Dr. Cuthbert Lockyer's account of the specimen, which he has also kindly mounted for me.

Specimen of Ruptured Fallopian Tube.

The specimen consists of a thin-walled sac formed of the distal portion of the tube. The sac presents internally a constriction towards its outer end, which partially divides it into two unequally sized cavities. The walls of the sac are somewhat rugose internally, and at one spot is attached a (?) villous tuft. The anterior wall of the larger and internal portion of the sac shows an extensive rupture which measures 3 cm. by 3·5 cm. The posterior wall of the sac is also ruptured, the tear measuring 2 cm. by 1·5 cm. The fimbriated end of the tube is very widely dilated, and measures 1·5 cm. vertically by 1 cm. in the transverse diameter.



Attached to the lower edge of the specimen is a small portion of the parametrium. The sac measures 6 cm. by 4 cm. The wide dilatation of the abdominal ostium suggests the occurrence of tubal abortion. In the recent

state the posterior tear looked like an accident produced during removal. The uterine end of the tube is not dilated.

A sketch accompanies these remarks. The fœtus measures 2·5 cm., *i. e.* one inch. The extruded chorion is in one piece, measuring 13 cm. in circumference; it consists of six tufts or lobes, and from the edge of the mass hangs the umbilical cord 1·5 cm. long.

The case is interesting partly on account of the history, but mainly because of the evidence of rupture having occurred in spite of the tubal abortion which was in progress.

Dr. Cullingworth said that, apart from the clinical interest of the case and the stimulating recital of difficulties overcome and success achieved under very trying conditions, the specimen had a very considerable pathological interest, from the fact of the co-existence of hæmorrhage from the open abdominal end of the tube, and actual rupture. If rupture were the result of the strain upon the tube-wall, caused by a sudden increase of bulk on the part of the ovum from hæmorrhage within and around it, one would expect, *a priori*, that hæmorrhage from the outer end of the tube would relieve the strain and avert rupture. Such a case as Dr. Routh's showed that it does not always do so. Obviously one must seek some other cause for the rupture than mere over-distension. Was it not to be found in the condition of the tube wall at the site of attachment and rupture? It had been shown by several observers that the chorionic villi grew into the muscular coat and thinned and destroyed it, even up to the peritoneal covering. If that observation were confirmed, it would be reasonable to conclude that this gives us the true explanation of the occasional occurrence of rupture, even when the strain upon the containing power of the tube is not excessive as in the case of Dr. Routh.

Dr. Roberts asked about the condition of the other tube. Several Fellows had remarked that the tube was excessively thin. Dr. Roberts pointed out that possibly this condition was congenital, as had been suggested by Mr. John W. Taylor, of Birmingham, as one of the predisposing factors of rupture of such tubes; he also thought that delay in the passage of the ovum might be caused by the tube being thin. Dr. Roberts thought that the patent ostium, which was so well marked on Dr. Routh's specimen, was a common one with a mole in the tube, allowing the escape of blood and the formation of pelvic hæmatocele.

PERSON AGED TWENTY-SIX; UNCERTAIN SEX.

Shown by Dr. W. S. A. Griffith.

Dr. Griffith showed a Pole, aged 26, with the voice, face, and shy manner of a young woman, breasts rudimentary, without sexual inclination to either sex.

The external genitals consisted of an empty scrotum, though occasionally a small abnormal-sized body could be felt at the external ring on the right side.

The penis or clitoris was small, without developed corpora cavernosa, not erectile, but perforated by the urethra, about one inch in length. He was said to have been circumcised while a baby. There was no vulva or vaginal orifice.

Per rectum no definite prostate or uterus could be felt.

Apart from these appearances of male sex, Neugebauer, in his paper in the 'Revue de Gynécologie et de Chirurgie abdominale,' showed that diagnosis by exploratory operation proved that the large majority of such cases of doubtful sex were male, as Dr. Griffith believed this patient to be.

PELVIC VISCERA SHOWING PSEUDO-HERMAPHRODITISM.

Shown by Dr. Hubert Roberts.

Dr. Hubert Roberts showed a specimen of pseudo-hermaphroditism in a male subject. The specimen was obtained post mortem from a man in St. Bartholomew's Hospital aged 44, who died of cerebral hæmorrhage. During life the condition was not suspected, as the external organs of generation were well marked, except that the testicles were retained. The man had a well-marked beard and other masculine attributes. He was

married, and was said to have been the father of two children. The specimen was of interest, as it showed the condition known as male pseudo-hermaphroditism, there being a well-marked uterus situated between the broad ligaments; but the bodies which at first sight appeared to be ovaries, by microscopical examination proved to be testes. There was an imperfect vagina, a well-marked epididymis, but no vesiculæ seminales.

The specimen had been previously shown by Mr. Edgar Willett before the Pathological Society in 1894.*

[Dr. Roberts laid before the meeting the following complete description of the specimen.]

The bladder and internal generative organs of a man in whom neither testis had descended into the scrotum, and in whom the uterus masculinus and vagina are developed to a very unusual degree.

The uterus, nearly as large as in the adult female, occupied a position between the bladder and rectum, and was enclosed between two layers of peritoneum, which stretched transversely across the pelvis, as does the broad ligament in the female; it covered the posterior surface of the uterus, extending down for two and a half inches from the fundus, from which point it was reflected on to the anterior surface of the rectum, forming a well-marked Douglas's pouch.

The rectum has been removed, as also has a good deal of the posterior layer of the broad ligament, especially from over the left testis and its surrounding parts.

Projecting from, but covered by the posterior layer of the broad ligament, are two oval bodies, which occupy the usual position of the ovaries. Of these the left is nearly twice as large as the right; they have been split to show their interior, and are kept open by short blue glass rods. Their structure is obviously testicular as verified by microscopical examination (see below), and a number of vasa efferentia pass off from the body of the

* "Transverse Hermaphroditism in the Male" (with drawing), 'Trans. Path. Soc.,' vol. xlv, p. 102.

testis to form the globus major of the epididymis: from the globus minor, which is placed above the globus major, proceeds on either side a convoluted vas deferens. This passes to the side of the uterus rather on the anterior surface, and, after becoming slightly dilated, is lost in the muscular tissue of the vaginal wall. The tunica vaginalis of each side has been laid open, and hangs at the side of the specimen. The uterus has been opened from behind. The uterine cavity presents the usual triangular shape. From each cornu proceeds a strong band of muscular fibre (? cremasteric), which passes forward to the internal abdominal ring, where it enters the inguinal canal, along which it runs till it issues from the external abdominal ring and spreads out on the posterior wall of the empty tunica vaginalis. This band of muscular fibre, therefore, occupies the position of the round ligament.

At the point where it leaves the cornu of the uterus is another but smaller cord, in the position and of the size of the Fallopian tube; it is, however, solid; it terminates on the globus major of the epididymis, the spot at which the hydatid of Morgagni (the remains of the fœtal duct of Müller) is found in the adult male.

The lower portion of the cavity of the uterus presents no cervix, but there is a slight constriction, below which it dilates into an oval cavity measuring $1\frac{1}{2}$ inches across, and nearly 2 inches vertically; it contains a whitish *débris* of uncertain character, and undoubtedly corresponds to the vagina.

Through an orifice at its lower extremity a bristle has been passed, which escapes at the sinus pocularis in the prostatic portion of the urethra. There are no vesiculæ seminales. The prostate is flattened from side to side, but is otherwise well formed. The bladder and ureters are normal, as also were the kidneys.

From a man aged 44, who was admitted to St. Bartholomew's Hospital with signs of cerebral hæmorrhage, from which he died in two days. He was well

formed, had a beard, full-sized penis, and pubic hair. He was married, and it was stated that his wife had two children.

The above notes are taken, almost *verbatim*, from the Museum Catalogue of St. Bartholomew's Hospital. The specimen is No. 3671 *b*.

On microscopical examination the rounded bodies prove to be testes, but the membrana propria of the seminiferous tubules is very much thickened. The mucosa of the uterus shows evident glands like those seen in a normal uterus. The prostate shows remains of small compound racemose glands among the muscular fibres.

Dr. Roberts was indebted to Dr. F. W. Andrewes, the Pathologist to St. Bartholomew's Hospital, for being allowed to show this specimen.

He turned attention to this specimen, as it may be of some value to Fellows of this Society in connection with Dr. Griffith's case shown on the same night.

Cases of this nature are of great interest, and some of them very puzzling, as in many of them examination of the external genital organs * fails to determine the sex of the individual, and for obvious reasons it is impossible to obtain a complete pathological examination.

No such thing as true hermaphroditism probably exists, *i. e.* individuals possessing the perfect organs of both sexes; and all cases like the above must be classed as pseudo-hermaphrodites,† *i. e.* that along with either ovaries or testicles there are found some of the genital organs of the opposite sex.

The greatest care must be taken before it can be certain that swellings supposed to be ovaries or testicles are really such; no real opinion should be given unless such swellings are examined microscopically.‡

* Ballantyne, op. cit., p. 103; Herman, 'Diseases of Women,' p. 615.

† Ballantyne, Allbutt and Playfair's 'System of Gynæcology,' pp. 102, 111, with literature; and Herman, 'Diseases of Women,' p. 614.

‡ Bland-Sutton, 'Diseases of the Ovaries and Fallopian Tubes,' 1891, p. 28; also Roberts, 'Outlines of Gynæcological Pathology,' p. 4, *et seq.*

Pseudo-hermaphroditism may be either male or female, and probably male pseudo-hermaphroditism is commoner than female.*

Either kind may be further subdivided into the internal, external, and complete variety.

The above specimen appears to be an example of internal male pseudo-hermaphroditism, for the reason that there are testicles in association with external genitals of the male type, together with a uterus, vagina, and rudimentary Fallopian tubes.

Mr. Willett classed the case as one of "transverse hermaphroditism in the male."†

Mr. Stonham ‡ reported a similar case in a child aged nine months.

Dr. Blacker and Mr. Lawrence § read a valuable paper on "A Case of True Unilateral Hermaphroditism in a Man" before this Society in 1896, together with a summary and criticism of the recorded cases of true hermaphroditism. Valuable references are given ‖ in this paper, as are also those given by Ballantyne in the article on this subject in Allbutt and Playfair's 'System of Gynæcology,' ¶ to which those desirous of further following out this difficult subject are referred.

Dr. Blacker thought Dr. Griffith's case was of great interest, and had little doubt but that the individual was really a male. It was unfortunate that the gland apparently present in the right inguinal canal could not be pushed down sufficiently far into the scrotum to enable the presence or absence of a vas deferens or epididymis to be determined. This was a very important point in the diagnosis of such a case. If the herniated or prolapsed organ was an ovary no palpable cord could, as a rule, be detected. He had not been able to obtain a cremasteric reflex. The presence or absence of secondary sexual

* Ballantyne, op. cit., p. 102.

† E. Willett, op. cit., pp. 102, 105.

‡ Stonham, 'Trans. Path. Soc. Lond.,' vol. for 1888, p, 219.

§ Blacker and Lawrence, 'Trans. Obstet. Soc. Lond.,' vol. xxxviii, 1896, p. 265.

‖ Blacker and Lawrence, op. cit., p. 307.

¶ Ballantyne, op. cit., p. 111.

characteristics was of very little value in deciding the question of sex. Numerous cases had been recorded of male pseudo-hermaphrodites in which well-marked feminine secondary sexual characters were present, and yet the genital glands were proved by operation to be testes. A very interesting case had been recorded by Berthold ('Archiv für Laryngologie und Rhinologie,' Band ix, 1899, S. 70), in which laryngoscopic examination had led him to suspect the sex of an individual dressed as a girl, from the length of the vocal cords. Further examination showed that the external genital organs had the characters of those of a male pseudo-hermaphrodite. An X-ray photograph of the larynx demonstrated the typical male type of ossification of the thyroid cartilage. The difference in the degree and in the manner in which ossification in the ala of the thyroid cartilage occurred in the two sexes was sufficiently marked to render such a photograph of value in settling a doubtful case of sex, and Dr. Blacker suggested that an X-ray photograph of Dr. Griffith's case should be taken to see whether it gave any corroborative evidence in favour of the view that the patient was really a male.

The PRESIDENT considered that Dr. Griffith's subject was an undeveloped male who had lived to be twenty-six, but had not attained puberty, for his voice was boyish, his breasts those of a male, a few scattered hairs on the pubes, and he (the President) had felt quite distinctly a small body in the right scrotum, which was almost certainly an undeveloped testis. There was no evidence whatever of a vagina, and the penis was present though small. The pelvis, however, seemed to be feminine in the relative width between the spinous processes and the crista ilii. It would be interesting to have the thyroid examined by the X rays after what Dr. Blacker had said, but would the thyroid ossify, as in a normal male, if the individual did not attain puberty? He related details of a case of true hermaphroditism that had come under his own observation, the person being brought up as a woman, but developing masculine characters, such as a beard and moustache. There was a well-marked penis and a small vagina.

Dr. MCCANN thought that the condition of the prepuce in this patient resembled that found in cases of hypospadias, more especially as the history of circumcision was by no means clear. Moreover in such cases the arrangement of the pubic hair resembled that found in the female. As to the occurrence of ovaries or testicles in patients with abnormalities of the genital organs, he pointed out that reference to recorded cases would show that even if the ovary or testicle were incised and microscopically examined it was not always possible to determine its true nature. In the development both of the ovary and the testicle an early stage exists, where it is not possible to decide

which gland is developing, and it is this stage which exists as a permanent condition in certain cases of abnormality in the human subject. Dr. McCann suggested that it is better to call the gland in such patients an ovo-testis. He hoped Dr. Griffith would examine the patient under an anæsthetic and report the condition of the pelvic organs found on bimanual examination.

CASE OF ORBITAL TUMOUR IN A HYDROCEPHALIC FEMALE FŒTUS, WITH TUMOUR OF CHEEK, MALDEVELOPMENT OF NECK, ASSOCIATED WITH HYDRAMNION, NECESSITATING INTERFERENCE WITH THE PREGNANCY AT THE SEVENTH MONTH.*

Shown by Mr. Stannus (introduced by Dr. Tate).

SEPTICÆMIC UTERI WITH BACTERIOLOGICAL INVESTIGATION.

Shown by Dr. Cuthbert Lockyer.

Dr. Cuthbert Lockyer showed two uteri removed after death from puerperal fever.

Case 1.—The patient was 34 years of age, she had been married ten years; had twice been pregnant before her fatal illness. The first child was born one year after marriage, the second was born four years and six months ago, and died of "meningitis" when twenty months old. On July 30th, 1901, labour began at the sixth month, nine pints of liquor amnii escaped, the pains were very feeble, and a child was delivered by forceps. A second

* Referred to the Teratological Committee.

and smaller child followed without artificial aid; the placenta and membranes were thought to be intact. The second child lived for eighteen days in an incubator.

The patient got up on August 15th, having until then convalesced without a rise of temperature, post-partum hæmorrhage, or other unfavourable symptom.

On August 21st sudden violent hæmorrhage occurred, and the accoucheur made a digital exploration of the uterus without an anæsthetic, and removed what he thought to be an accessory piece of placenta the size of his index finger. This was at midnight on August 21st. At 5.30 a.m. on August 22nd a rigor lasting five minutes, with a temperature of 100° and vomiting, was noted; and on August 23rd two rigors followed a curetting performed by the doctor, the temperature reaching 103° and 105° respectively upon these two occasions. On August 24th, after dropping to 98°, the temperature again rose to 105° during another rigor, and this was repeated on August 25th. Dr. Lockyer was sent for, and removed, by curetting, a considerable amount of pale grey membranous tissue, which was subsequently examined microscopically. The day following, the temperature during a rigor reached 106°. On August 30th Dr. Lockyer again saw the patient with a view to removing the uterus, but found that the diphtheritic inflammation had spread throughout the entire genital tract, and had reached to the vulva. The membrane was again swabbed from the uterine cavity, and removed from the vaginal cervix and from the canal. The walls of the vagina, after the membrane had been stripped off, presented multiple bleeding points and a few "puerperal" ulcers. The uterus had, in the period between the exploration on August 25th and that undertaken on August 30th, contracted from four and a half to three and a half inches as measured by the sound, and its removal would not have been difficult had the condition of the genital tract allowed of such a procedure.

The temperature remained the same in character after

the above exploration in spite of the fact that intra-uterine douches of 1—4000 perchloride of mercury were employed, and antistreptococcic serum injected.

On September 1st the patient was put into a warm bath at 7 p.m.; the water was kept at 102° F., and continuous irrigation of the uterus and vagina was kept up in the bath until 4 a.m., the patient sleeping nearly the whole time, this being the first sleep, excepting for fitful dozing, which she had had for three days. The temperature, taken by the mouth, rose in the bath to 105·4°, but there was no rigor, the patient expressing herself as being more comfortable than she had felt before during her illness. Subsequently to the bath, intra-uterine irrigation was kept up for two hours at a time, and, in addition to serum injections, saline solution was injected daily, half a pint under the anterior axillary fold on either side, and tepid sponging was employed, but no treatment influenced the temperature.

On September 5th crepitations were first heard over the left pulmonary area, and an apical systolic murmur was distinguishable; the patient complained of a tight feeling across the front of the chest. The next day expectoration of very tenacious mucus began. This gave the patient much trouble, but the sputum was rendered less viscid by the administration of chloride and carbonate of ammonium.

The vaginal walls healed rapidly, and the uterus remained freely moveable. Throughout the illness there was no sign of peritonitis, and the patient took nourishment well nearly to the last. The pulmonary symptoms gradually became more severe, oxygen was given for cyanosis, and on September 9th muttering but quiet delirium set in, and continued off and on until September 16th, when for a time the patient was very noisy. From this time she gradually sank, and died on September 19th, fifty-one days after confinement, thirty days after the removal of adherent placenta.

On post-mortem examination one day after death, the

peritoneum was found to be normal in appearance; the intestines were distended with gas, but their coat was shiny, pale, and not sticky. The abdominal viscera appeared healthy to the naked eye. Both lungs contained many triangular peripheral infarcts, around which the neighbouring visceral pleura had acquired adhesions to the chest wall. Some of the infarcts had broken down to form abscesses with ragged sloughing walls.

The heart muscle was soft and pale; the right side of the heart was filled with blood-clot, some of which was of ante-mortem formation. The valves were normal, the entire endocardium was normal, no petechiæ were visible. There was slight excess of pericardial fluid, and the fluid was slightly turbid. The pericardium appeared normal; there were no petechiæ, no adhesions, no roughness.

The uterus and appendages were free, the pelvic peritoneum was healthy. The vessels in the right broad ligament were dilated, and felt like firm cords; close to the right ovary there was a nodule the size of a walnut, which upon incision yielded greenish pus, and upon further dissection proved to be an abscess incorporated with the right ovarian vein. The uterus measured 12 cm. long, and at its fundus was 8 cm. wide. At its right cornu was situated the site of the adherent placenta; this comprised an area of 3 by 2 cm. The wall of the uterus at this spot was extremely thin, the muscle being in great part absent, the base of the ulcer being little more than peritoneum; externally, however, the latter membrane was unaltered. On transverse section the wall of the uterus measured 2 cm. on the right side, 1 cm. on the left.

All the vessels in the right uterine and ovarian venous plexuses were thrombosed, and upon the largest vessel of the right pampiniform plexus was a thick-walled abscess measuring 3 cm. by 1·5 cm. Although this lay close to the right ovary, that organ presented normal macroscopic appearances, excepting that it was slightly larger than usual, as was also the left ovary. The Fallo-

pian tubes measured 10 cm. in length, and showed no signs of inflammation.

The material removed at the first curetting consisted of three distinct layers: (1) a thick layer of cellulo-plastic exudate; (2) a layer of infiltrated muscle; (3) a thin layer of œdematous muscle.

No mucous membrane could be found (the accoucheur having probably removed the endometrium by his first curetting, but the tissue upon this occasion was not saved).

The uterine wall in the neighbourhood of the placental site shows groups of staphylococci running in lymph spaces among the muscular elements. The same organisms have been found in the abscess wall, which has been described as situated in the left pampiniform plexus.

Summary of the Temperature Chart.

The temperature was recorded every two hours for thirty-five days.

The mean temperature after infection was—

For the first seven days . . .	99·50
,, second seven days . .	102·41
,, third seven days . . .	102·80
,, fourth seven days . .	101·90
,, fifth seven days . . .	100·45
In thirty-five days	101·41

During the first seven days after infection the greatest diurnal variation was seven degrees Fahrenheit, ranging from 99° to 106° F. This rise occurred twenty hours after curetting.

The lowest diurnal variation during this period was 3·8° F., ranging from 98·2° to 102° F.; this was the reading the day following the second curetting.

Seven times during the first week the temperature fell to the normal line. The lowest point reached was 98°, the highest 106°.

During the second seven days the maximum daily range was 6·8° (from 99° to 105·8°), the lowest 1·6°

(from 102·4° to 104°). Once only, during the second week, did the temperature fall to normal.

The lowest point reached was 98·4° F., the highest 106·4° F.

During the third week the maximum diurnal variation of temperature was 6·8° (from 99° to 105·8°). Three times was there a range of over 6° between morning and evening temperature, and for eighteen days the temperature never fell to normal. On five occasions during the third week the temperature reached 106° F., or higher; once it registered 107° F.

The minimum daily range during the third week was 2° (from 102·2° to 104·2°). The lowest temperature for this week was 99°, to which point it fell but once.

During the fourth week the greatest daily range was 4·2° (from 99° to 103·2°); the smallest diurnal range 1·2° (from 100° to 101·2°); the maximum temperature was 105·2°; the minimum 99°, which was reached on two occasions.

During the fifth week the greatest daily variation was 4·2° (from 99° to 103·2°), the smallest 1·6° (from 100° to 101·6°).

For six hours the patient was very collapsed, the temperatures reading 98·2°, 97·6°, 97·6°, 97·4° in succession, four days before death. The maximum temperature during the last week was 103·6° (six days before death); the minimum 97·4° (four days before death). The temperature just before death was 98·2°. Eight times during the last week the temperature fell below normal.

Bacteriological Report.

The following report was received from the Laboratory of Clinical Pathology, 62, Queen Anne Street, London, W.:

1. *Swab from high up in the vagina.*—Guinea-pig, inoculated under the skin with 1 c.c. of emulsion prepared from this swab, died within forty-eight hours, evidently from septicæmia, staphylococci (probably *Staphylococcus*

pyogenes albus) being present in large numbers in blood and internal organs. No signs indicative of diphtheria infection could be found.

2. *Swab from low down in vagina.*—Guinea-pig, a larger and stronger animal than above, received also 1 c.c. of this emulsion, but without further effect than to produce local inflammatory reaction, abscess, and ulceration.

Cultures on blood-serum were then prepared from these injection emulsions, and attempts were made to produce membranes with these in the following ways:

1. The vaginal mucous membrane of a guinea-pig was lightly cauterised, and this culture rubbed into the exposed surface; this animal continues in perfect health with only the formation of a small ulcer, uncovered by membrane.

2. The skin of a guinea-pig's ear was scarified, and the excoriated surface rubbed with the vaginal swab coated with the culture, the ear being then covered with an india-rubber hood to keep the surface moist; here likewise only a small sore resulted, and the animal continues in perfectly good health.

ALFRED MOORE.

The result of the inoculations therefore shows that at the present time the infection is not diphtheritic, and confirms the first results obtained by culture, viz. that the organism present is the *Staphylococcus albus*.

G. L. EASTES.

Dr. Lockyer had to thank Dr. Eden for permission to show the following specimen:

CASE 2.—The patient was a young primipara, who, on September 19th, 1901, was delivered of a full-term child. The birth was said to have been normal, and no interference was needed. On the third day the patient had a rigor.

Dr. Eden saw the patient in consultation on September 25th. She then had a temperature of 103°, and all

the signs of general peritonitis. On vaginal examination the uterus was found to be bulky, tender, and fixed.

The patient was admitted into Charing Cross Hospital on September 26th.

Intra-uterine douching and serum-therapy were employed, stimulants and antipyretics were administered, but the patient died four days after admission into the hospital, and ten days after confinement.

At the autopsy the entire peritoneum was found to be coated with pus and flakes of greenish-coloured lymph; the internal viscera were congested, petechiæ were found on the pericardium and endocardium. The lungs were the seat of septic broncho-pneumonia. The pelvic organs were matted together with purulent lymph; the uterus measured 16 cm. in length, 17 cm. in width (when opened out), and its walls were 3 cm. in thickness. The placental site reached upon the left side from the fundus nearly to the internal os, and measured 10 × 7 cm. The entire cavity was in a sloughing condition, this being most marked in the lower zone. Gram's staining of microscopic sections revealed groups of cocci in the cervix and in the muscular wall of the lower uterine segment.

The PRESIDENT considered the case of great importance, and thought it would be well if it and similar cases were given in fuller detail, clinically as well as pathologically. He asked if antistreptococcic serum was used in the second case. He himself was still using it in puerperal septicæmic cases, and in some instances it certainly seemed to do good, whilst in others it was just as disappointing. We wanted, therefore, more reliable information.

A CASE OF COMBINED VAGINAL AND ABDOMINAL HYSTERECTOMY FOR A PREGNANCY OF FOUR AND A HALF MONTHS, COMPLICATED BY CANCER OF THE CERVIX.

By R. Sanderson, M.B.Oxon.,

SENIOR SURGEON TO THE HOSPITAL FOR WOMEN, BRIGHTON.

(Received October 24th, 1901.)

(*Abstract.*)

The author reports a case of epithelioma of the cervix in a uterus which was four and a half months pregnant.

Finding that the epithelioma was operable, he removed the uterus and the growth by a combined vaginal and abdominal operation, without previous induction of labour.

The specimen and microscopic section of the growth are described and shown.

The ethics and the treatment adopted are discussed under the following heads.

(1) That where pregnancy and operable cancer of the cervix co-exist the life of the mother is alone to be considered.

(2) That anterior to the fourth month of pregnancy vaginal hysterectomy is the orthodox treatment.

(3) That after this period the alternative methods are (*a*) induction of labour followed by vaginal hysterectomy; and (*b*) hysterectomy, without induction of labour, by a combined vaginal and abdominal operation.

(4) That the latter of these alternatives, having regard to the improved statistics of abdominal hysterectomy, was in this case to be preferred.

A HEALTHY-LOOKING, well-nourished woman, aged 34, was admitted to the Hospital for Women, West Street, Brighton, on September 8th, 1901. She gave the following history.

She had been married fourteen years, and had had three previous pregnancies :

(1) Thirteen years ago—a living child born at full time.

(2) Eight years ago—a living child born at the seventh month.

(3) Four years ago—a stillborn child at full time.

Since the last pregnancy her menstrual periods had been regular every three weeks. The last period, so far as she could recollect, terminated on June 12th of this year (1901). Since that date she had suffered from morning sickness and an irregular vaginal discharge, sometimes of watery fluid, but generally of blood.

For the last six weeks before admission she had noticed "something coming down in the front passage."

Since August 8th of this year, that is for a month, she had been under medical supervision outside the hospital, and had been ordered rest in bed and vaginal douches, but had not been examined *per vaginam*.

When seen after admission the uterus on palpation externally was found to be symmetrically enlarged, the fundus being three inches above the pubes; it was uniformly soft and elastic to the touch, there was a well-marked mammary areola, and milk could be expressed from the breasts.

Per vaginam a carcinomatous tumour of the "cauliflower" type was found the size of a racquet ball, springing from the anterior lip of the cervix.

The os uteri could be seen and felt immediately behind the base of the growth, and the posterior lip of the cervix was not involved, nor was there apparently any invasion of the vaginal mucous membrane, although the anterior surface of the base of the growth encroached closely upon the anterior fornix.

The nutrition of the growth was good, and though friable on the surface, and bleeding readily to the touch, it had not begun to ulcerate or necrose. The uterus was freely moveable.

On September 18th, 1901, the entire uterus, with its contents and the growth attached, was removed by the combined method.

The vagina having been thoroughly flushed with an antiseptic and dried, the growth was freely touched over with a Paquelin's cautery.

The cervix was then freed in the usual manner by the vaginal route, the bladder was separated from the anterior uterine wall, and the pouch of Douglas opened. A cyanide gauze pack was temporarily pushed into each opening before and behind the uterus.

The abdomen was then opened in the Trendelenburg position, the ovarian and uterine arteries secured on either side, and the broad ligaments cut through close to the uterus, thus releasing the whole uterus and growth.

The long anterior peritoneal flap was carefully sewn over the vaginal opening by a continuous suture of fine silk, a pack of cyanide gauze wrung out of carbolic lotion was placed in the vagina, and the abdomen closed without drainage. The uterus was removed unopened, and the ovaries, which on inspection appeared to be quite normal, were not removed.

After being in some immediate danger from shock, which was apparently aggravated by carbolic absorption—some dark, smoky-looking urine being drawn off from the bladder,—she rallied well in twenty-four hours and made a good recovery.

There was free vaginal oozing for twelve hours after operation; none subsequently. She left the hospital well, but rather anæmic, on October 16th.

The vaginal wound had healed soundly, and there was then no evidence of recurrence. When last seen, on November 13th, the anæmia had disappeared, and there was still no sign of recurrence.

Microscopic sections of the growth taken soon after removal are now shown with the specimen. They exhibit groups of large nucleated cells, having no glandular arrangement, in a stroma, which here and there shows round-cell infiltration.

The uterus has shrunk to some extent since its removal —when it appeared to be rather larger than that of a four months' pregnancy,—possibly about eighteen weeks.

On October 25th it was weighed and measured, the liquor amnii having drained away from incisions purposely made before the specimen was originally placed in a 1·5 per cent. solution of formalin.

Weight . . .	$1\frac{1}{4}$ lbs.
Length from edge of cervix to fundus .	$5\frac{3}{4}$ inches.
,, apex of growth ,, .	$6\frac{1}{4}$,,
Greatest breadth . . .	4 ,,
Thickness (antero-posterior) . .	$3\frac{1}{4}$,,
Greatest circumference . .	$11\frac{1}{2}$,,

The shape of the growth itself is truncated rather than pear-shaped, and is not appreciably narrower at the base than at the apex. It measures fully one inch across the base. Vertically the anterior surface, which is concave, measures one inch; the posterior, which is convex, measures one and a half inches.

The growth has not a straight longitudinal axis, but curves forward, so that the extremity lay in close contact with the anterior vaginal wall.

The base of the tumour occupies the anterior three eighths of the circumference of the vaginal cervix.

It does not occlude the os, and, as about five eighths of the cervix are not involved in the growth, there would have been no unusual difficulty in dilating the os mechanically, had such a course been decided upon.

How far the tissues of the uterus itself were involved upwards was, at the time of operation, a matter for conjecture. The indurated tissue of the base of the growth could be felt extending upwards as far as and beyond the vaginal reflexion. The specimen has not

since been incised in order to exactly determine this question, but from inspection it may be fairly surmised that infiltration does not extend beyond the internal os.

If it be considered a matter of importance, in reference to the treatment of similar cases, to determine with further accuracy the stage of pregnancy and the limits of the growth than can be attained by inspection only, it is suggested that the specimen should be reported on by a committee of this Society.

It will be noted that a slice has been shaved off the side of the growth for microscopic examination.

The disputable points in regard to this case are mainly of two kinds:

(1) Those connected with the ethics of the treatment.

(2) Those connected with the treatment itself.

As to the ethical question, it would seem that, in the absence of any strong reason for preserving the life of the fœtus until it was viable, the life of the mother in the case of recently discovered and localised cancer demands our first and only consideration.

If the cancer should prove, after careful inspection, to be inoperable, the question of preserving the fœtal life might then be considered.

But even then the poor prospect of the birth at full time of a reasonably healthy child has to be balanced against the probable prolongation of the mother's life by emptying the uterus at once, supposing this to be possible.

In support of the above general view of the ethical question Professor Sinclair quotes eleven cases of vaginal hysterectomy in early pregnancy (*i. e.* anterior to the fourth month) complicated by cervical cancer.

These include cases by Olshausen, Greig-Smith, Brennecke, and Kaltenbach.* And if the ethics thus supported hold good in early pregnancy they hold good equally in later pregnancy, provided that the cancer is operable.

* Article by M. J. Sinclair, Clifford Allbutt and Playfair's 'System of Gynæcology.'

Then in regard to the treatment adopted in this case. Theilhaber* advocates the induction of premature labour in cases of pregnancy of more than three months, complicated by cancer of the cervix, and subsequent vaginal hysterectomy.

Professor Sinclair, in his article on this subject in Allbutt and Playfair's 'System of Gynæcology,' also advocates this treatment, and at the same time remarks that, if sepsis should appear after the induction of labour, hysterectomy should be at once resorted to; but that otherwise the hysterectomy might await convalescence from the premature labour.

In the case which is the subject of this paper it was considered (*a*) that the probabilities of sepsis after the induction of labour, arising from a bruised and probably lacerated malignant growth of the cervix, and (*b*) the great disadvantages of having to perform hysterectomy with the uterus already septic, rendered a more summary method of treatment preferable.

And inasmuch as the cancer appeared to be in itself operable, the safest and the most obvious road to success seemed to be a complete hysterectomy by the combined method, without previous induction of labour.

It is true that the combined method of Freund has fallen into some disrepute, but it is difficult, in the face of the success of operations for uterine myoma, to see why this should be.

And it is thought that the present case may possibly help to re-establish that operation where the single route, whether vaginal or abdominal, is either very difficult or impossible.

Dr. W. H. Tate congratulated Dr. Sanderson on the successful result of his operation. He thought, however, that it was not necessary to have subjected the patient to the risk of a vagino-abdominal hysterectomy, and that the operation might have been more safely performed by the vaginal route alone. By making a longitudinal incision through the cervix and emptying the uterus of its contents it was possible to remove a uterus in which the pregnancy had advanced to the sixth month, if not

* Ibid., see above.

later. Six years ago Dr. Tate had treated a case of carcinoma of the cervix complicating a five months' pregnancy by the older method of inducing abortion, and removing the uterus *per vaginam* ten days later. Although the case was a favourable one for operation the disease rapidly recurred.

Dr. J. H. Dauber said he thought time alone would decide whether the operation that had just been described afforded the patient a longer period of immunity from recurrence than the more usual method of procedure in these cases. That operation was the best which came nearest to effecting a real and permanent cure. He would like to know in three or five years' time if Dr. Sanderson's case were alive and well, and he hoped the Society might be informed on this point. He himself had had a similar case under his care in 1898 at the Hospital for Women, Soho, a woman pregnant some four and a half or five months, with cancer of the cervix. After consultation with his colleagues he had emptied the uterus and then waited for its involution, when he performed vaginal hysterectomy. The patient never had a bad symptom while in the hospital, but he believed recurrence, resulting in death, occurred within eighteen months, if not sooner. This he considered unsatisfactory. The fœtus was destroyed and the mother did not long survive. He would therefore follow with interest the future of Dr. Sanderson's patient.

Dr. W. S. A. Griffith said he agreed that vaginal hysterectomy, after emptying the uterus, was at present the best operation, the mortality being very low, and the prolongation of life in many cases considerable.

Dr. Amand Routh said that vaginal hysterectomy could be performed at a much later date than that of a four months' gestation. By incising the anterior uterine wall along its centre as it was pulled down into the vagina the contents could be readily evacuated. The uterus promptly retracted, and its size became so materially diminished that its removal became easy by the vaginal route. The alternative procedure to this operation in such a case would be somewhat as follows:—first, a temporary removal of the cervical growth by scissors, gouge, or cautery, treating the stump with pepsin dressings to digest any sloughs: secondly, induction of abortion; and thirdly, in a week's time, to allow some involution to take place, vaginal hysterectomy. In early pregnancies he much preferred the former plan. In every case the uterus should be emptied before removal *per vaginam*.

Dr. Herbert Spencer agreed with other speakers that it was not necessary to resort to abdominal section in this case. In a recent paper by E. Alterthum, who had himself performed vaginal hysterectomy for cancer at the sixth month, the operation being very easy (*sehr bequem*), a list of eighteen cases was

given in which the uterus was thus removed *per vaginam* unopened, all the cases recovering. Nevertheless there was a wide-spread tendency at the present time to operate by the abdomen in cases of cancer of the cervix, not for the simple removal of the uterus, as in Dr. Sanderson's case, but in order to remove the broad ligaments and glands as widely as possible. This operation received support from the researches made in Prof. Rosthorn's clinic, which showed that no less than 57·5 per cent. of cases of cancer of the cervix in the operable stage had already the glands infected, and therefore a vaginal operation would be useless from the point of view of cure. If these researches were confirmed they would considerably alter our views upon the treatment of cancer of the uterus. But the question arose as to the results of this extensive dissection. As far as he knew the results had not been good, and a sufficient time had not elapsed to allow us to judge of the chances of "cure." At the present time he (Dr. Spencer) believed that in the case under discussion a better operation than abdominal hysterectomy would have been high amputation with the cautery, followed by removal of the ovum. By removal of the cervix and part of the lower segment with the cautery local implantation of cancer cells (Impfmetastase) was prevented, and, as the wounds were aseptic, he was not sure that it was advisable to remove the body. He thought also that high amputation after induction of abortion was a good operation if the growth was not in a septic condition. He had not had a case of early pregnancy complicated by cancer in an operable stage; but in three cases of cancer complicating labour he had amputated the cervix and part of the lower segment after delivery (in one case premature labour being induced), and the patients were now well after eight and a half, six, and five years. He did not know of such good results after any kind of hysterectomy for cancer complicating pregnancy.

The PRESIDENT agreed that it was nearly always justifiable to consider the mother alone when both she and the child could not be saved, though he thought it might so happen that it would be justifiable to save the child. He could not help agreeing with those who advocated the vaginal route; and even where the uterus was too large, as when the child was viable, he advocated the induction of labour and then waiting until involution had proceeded far enough to allow of vaginal extirpation rather than a vagino-abdominal operation. Moreover in the earlier states of pregnancy he considered it bad practice to try and drag an unemptied pregnant uterus through the opening made in the vaginal roof; it did no good, and only bruised the tissues; it was far better to rupture the membranes and remove the fœtus and placenta, thereby reducing the bulk of the uterus to a minimum before extracting it. The removal of the can-

cerous mass first, leaving the uterus to be dealt with afterwards, had not been considered by the author, but he agreed with Dr. Routh that it might in some cases be practised with advantage. In operating he used numerous short forceps, grasping very little tissue, and removing them in thirty hours. In this way by the help of formalin douches offensive discharges following upon the operation were reduced to a minimum.

Dr. SANDERSON, in reply, recognised the justice of the criticisms in the debate on this case. He, however, found it difficult to understand why a combined hysterectomy should be a more severe operation than a vaginal or an abdominal one. Whether the cervix was circumcised from below or whether from above, as in Doyen's operation for abdominal hysterectomy, could make little or no difference in the security of the operation; and he believed that in the future, as abdominal methods improved, the abdominal or combined route would eventually be preferred to the vaginal. He expressed his thanks to the President and Fellows for the interest which they had shown in this case.

ERRATA AND ADDENDA.

Page 181, line 6 from bottom, *for* "subperitoneal pedunculated fibroids" *read* "subperitoneal fibroids with a well-marked pedicle."

Page 183, line 2, *for* "Susserot" *read* "Süsserot."

Page 209, lines 6 and 7, second paragraph, *for* "though these cells" *read* "though the cells."

Page 211, lines 6 *et seq.*, second paragraph, *should read* "that generally depended on the patient being less than four weeks pregnant when the hæmorrhage into the ovary occurred. If a mole were formed or tubal abortion occurred before four weeks," etc. *Ibid.*, lines 12, 13, between "twisting" and "was too slight" *insert* "in that case."

Page 211, the title over last paragraph *should begin* "Incomplete Tubal Abortion showing Escape of the Body," etc.

Page 212, line 5, sentence *should end* "till her admission on June 1st."

Page 213, line 5, *should begin* "in the fimbriated opening."

INDEX.

PAGE

Abortion, tubal, with rupture of tube (A. Routh) . . 294
Address (*Annual*) *of the President*, Alban Doran, F.R.C.S., February 6th, 1901 35
—— (*Inaugural*) *of the New President*, Peter Horrocks, M.D., March 6th, 1901 79
—— loyal, to the King on the death of Queen Victoria . 21
—— —— reply 143
Alcock (Richard), cystic corpus luteum (shown) . . 208
Amenorrhœa, decidual uterine cast expelled after eight weeks, together with an ovum of about five days' growth (W. E. Fothergill) 162
Amnion, retention of the cavity of, in the tube, in a tubal mole, showing escape of the body of the embryo through the fimbriated opening (J. S. Fairbairn) . . 211
Andrews (H. R.), fibro-myoma of the ovary . . 231
—— *Remarks* in reply 233
—— primary melanotic sarcoma of ovary (shown) . . 228
—— two cases of fœtal ascites and œdema . . . 166
—— *Remarks* in reply 172
—— microscopical sections of the kidneys from a fatal case of puerperal eclampsia (with full notes of post-mortem) (shown) 114
—— *Remarks* in reply 116
Anning (G. P.), and Harry Littlewood, primary ovarian pregnancy with rupture fourteen days after last menstruation 14
—— *Remarks* in reply 20
Annual General Meeting, February 6th, 1901 . . 23
Ascites, see *Dropsy*.

Blacker (G. F.), *Remarks* in discussion on C. H. Roberts's specimen of pelvic viscera showing pseudo-hermaphroditism 302

PAGE

Bland-Sutton (J.), gonorrhœal pelvic peritonitis . . 251
—— *Remarks* in discussion on G. P. Anning and H. Littlewood's paper on primary ovarian pregnancy with rupture fourteen days after last menstruation . . . 17
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 199
Bonney (William Francis Victor), uterus bicornis unicollis (shown) 77
—— *Remarks* in discussion on H. R. Spencer's specimen of cystic fibro-myoma of the uterus removed by posterior colpotomy 113
—— —— in discussion on J. S. Fairbairn's specimen of carcinomatous tumour of ovary 210
Boxall (Robert), cystic fibroid with carcinoma of left ovary and right Fallopian tube (shown) . . . 71
—— *Report* of Committee 144
—— —— on Arnold Lea's specimen of sarcoma of the uterus and pelvic cellular tissue 145
Boyd (Stanley), suppurating fibroid tumour of the uterus . 172
Briggs (Henry), *Remarks* in discussion on H. R. Spencer's specimen of cystic fibro-myoma of the uterus removed by posterior colpotomy 113
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 199
Butler-Smythe (A. C.), carcinomatous uterus removed eighteen and a half years subsequent to double ovariotomy (shown) 214
—— *Remarks* in reply 216
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 202

Cancer, cystic fibroid with carcinoma of left ovary and right Fallopian tube (R. Boxall) 71
—— of the cervix complicating a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months (R. Sanderson) . . . 312
Carcinoma of cervix uteri, with double salpingitis, complicating fibro-myoma of uterus (W. W. H. Tate) . . 270
—— of left ovary and right Fallopian tube with a cystic fibroid (R. Boxall) 71
Cast, decidual uterine, expelled after eight weeks' amenorrhœa, together with an ovum of about five days' growth (W. E. Fothergill) 162

PAGE

Cervix, see *Uterus* (cervix of).
—— of uterus, squamous epithelioma of; removed in 1895; no recurrence in 1901 (A. H. N. Lewers) . . . 266
—— uteri, cancer of, complicating a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months (R. Sanderson) . . . 312
—— volsella forceps for the soft dilated (R. Wise) . . 233
Champneys (Francis Henry), *Remarks* in discussion on J. P. Maxwell's paper on spontaneous rupture of the uterus in placenta prævia 220
Claremont, Claude Clarke, of Hampstead Road, N.W., obituary notice of 62
Colpotomy, cystic fibro-myoma of the uterus removed by posterior (H. R. Spencer) 110
Cornu, left uterine, sloughing fibroid of; abnormal relations (A. Doran and C. Lockyer) 272
Corpus luteum, cystic (R. Alcock) . . . 208
Croft (E. O.), *Report* of Committee . . . 24
Cullingworth (C. J.), *Remarks* in discussion on J. S. Fairbairn's specimen of tubal mole, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the tube . 213
—— —— in discussion on R. Boxall's specimen of cystic fibroid with carcinoma of left ovary and right Fallopian tube 73
—— —— in discussion on W. E. Fothergill's specimen of decidual uterine cast, expelled after eight weeks' amenorrhœa, together with an ovum of about five days' growth . 165
—— —— in discussion on W. W. H. Tate's specimen of fibro-myoma of uterus showing marked cystic degeneration, removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before . . 27
Cyst, congenital cœlomic (C. Lockyer) . . . 7
—— dermoid, of ovary, obstructing labour; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. Munro Kerr) . . . 145
—— fibroid of broad ligament associated with an ovarian (A. Doran) 260
—— papillomatous, of an accessory ovary (A. L. Galabin) . 267
Cystic corpus luteum (R. Alcock) . . . 208
Cysts, hydatidiform, growing in the vulva (A. J. Sturmer) . 148

PAGE

DAUBER (J. H.), *Remarks* in discussion on R. Sanderson's paper on a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months . 318

DAVIES (Hughes R.), new pessary (shown) . . 28

DAWSON (E. Rumley), *Remarks* in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia with special reference to the use of saline transfusion 156

Deciduoma malignum (P. Horrocks) . . 109, 283

Degeneration, marked cystic, in fibro-myoma of uterus removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before (W. W. H. Tate) . 26

Dermoid cyst of ovary obstructing labour; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. Munro Kerr) 145

Displacement of dermoid cyst of ovary obstructing labour, from the true pelvis, and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. Munro Kerr) 145

DONALD (Archibald), fibroid tumours complicating pregnancy and labour 180

—— *Remarks* in reply 204

DORAN (Alban), acute torsion of an ovarian pedicle, from a case where there was chronic torsion of the pedicle of a tumour of the opposite ovary (shown) . . . 12

—— *Annual Address* as President . . . 35

—— fibroid of broad ligament associated with an ovarian cyst (shown) 260

—— *Remarks* in reply 266

—— pregnant fibroid uterus removed at the fifth month (shown) 178

—— *Remarks* in discussion on C. Lockyer's specimen of congenital cœlomic cyst 9

—— —— in discussion on W. Duncan's specimen of uterus removed at full term by intra-peritoneal hysterectomy in a case of contracted pelvis 10

—— —— in discussion on G. P. Anning and H. Littlewood's paper on primary ovarian pregnancy, with rupture fourteen days after last menstruation . . . 20

—— —— in discussion on A. W. W. Lea's specimen of sarcoma of uterus 74

PAGE

Doran (Alban), *Remarks* in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . 197
—— —— in discussion on C. Lockyer's specimen of endometritis exfoliativa 207
—— —— in discussion on R. Alcock's specimen of cystic corpus luteum 208
—— —— in discussion on G. S. Fairbairn's specimen of carcinomatous tumour of ovary 210
—— —— in discussion on A. C. Butler-Smythe's specimen of carcinomatous uterus removed eighteen and a half years subsequent to double ovariotomy . . . 216
—— —— in discussion on A. L. Galabin's specimen of subperitoneal fibro-myoma 226
—— —— in discussion on A. L. Galabin's specimen of sarcoma of uterus 227
—— —— in discussion on W. S. Handley's specimen of tubal mole with encysted hæmatocele . . . 258
—— *Report* of Committee 288
—— and Cuthbert Lockyer, sloughing fibroid of the left uterine cornu; abnormal relations (shown) . . 272
—— *Remarks* in reply 281
Dropsy of fœtus and œdema (H. R. Andrews) . . 166
Duncan (William), multiple myxomatous polypi from the cervix uteri (shown) 75
—— sarcoma of uterus 228
—— subperitoneal fibroma (shown) . . . 228
—— uterine fibroids removed by intra-peritoneal hysterectomy (shown) 76
—— uterus removed at full term by intra-peritoneal hysterectomy in a case of contracted pelvis (shown) . . 9
—— *Remarks* in reply 12
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 198

Eclampsia, puerperal, microscopical sections of the kidneys from a fatal case of (H. R. Andrews) . . . 114
—— —— pathology and treatment of, with special reference to the use of saline transfusion (E. W. Hey Groves) . 117
Eden (Thomas Watts), *Report* on E. O. Croft's specimen of an anomalous case of ectopic pregnancy, probably ovarian 25
—— —— of Committee 288
—— *Remarks* in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion . 148

PAGE

Eden (Thomas Watts), *Remarks* in discussion on W. E. Fothergill's specimen of decidual uterine cast, expelled after eight weeks' amenorrhœa, together with an ovum of about five days' growth 165
—— —— in discussion on H. R. Andrews' specimen of two cases of fœtal ascites and œdema . . . 172
Election of new Fellows . . 1, 23, 71, 109, 144, 205, 223, 251
Embryo, escape of the body of, through the fimbriated opening, shown in a tubal mole, with retention of the head and amniotic cavity in the tube (J. S. Fairbairn) . 211
Endometritis exfoliativa (C. Lockyer) . . . 205
Epithelioma, squamous, of cervix uteri; removed in 1895; no recurrence in 1901 (A. H. N. Lewers) . . 266

Fairbairn (John Shields), carcinomatous tumour of ovary (shown) 208
—— *Remarks* in reply 211
—— tubal mole, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the tube (shown) . . 211
—— *Remarks* in reply 214
Fallopian tube, cystic fibroid with carcinoma of left ovary and right (R. Boxall) 71
—— —— tubal abortion with rupture of (A. Routh) . 294
Fellows, see *Lists. Elections.*
Fibroid of broad ligament associated with an ovarian cyst (Alban Doran) 260
—— sloughing, of the left uterine cornu; abnormal relations (A. Doran and C. Lockyer) 272
—— tumours complicating pregnancy and labour (A. Donald) 180
Fibroids, see *Tumours* (fibroid).
Fibroma, subperitoneal (W. Duncan) . . . 228
Fibro-myoma, cystic, of the uterus, removed by posterior colpotomy (H. R. Spencer) 110
—— of the ovary (H. R. Andrews) . . . 231
—— of uterus complicated with double salpingitis and carcinoma of cervix (W. W. H. Tate) . . . 270
—— of uterus showing marked cystic degeneration, removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before (W. W. H. Tate) . 26
—— subperitoneal (A. L. Galabin) . . . 225

PAGE
Fœtus, ascites and œdema of (H. R. Andrews) . . 166
—— hydrocephalic female, orbital tumour in, with tumour of cheek, mal-development of neck, associated with hydramnios, necessitating interference with the pregnancy at the seventh month (H. S. Stannus) . . . 304
Forceps, volsella, for the soft dilated cervix (R. Wise) . 233
Fothergill (W. E.), decidual uterine cast expelled after eight weeks' amenorrhœa, together with an ovum of about five days' growth (shown) 162

Galabin (A. L.), papillomatous cyst of an accessory ovary (shown) 267
—— sarcoma of uterus (shown) 226
—— *Remarks* in reply 228
—— subperitoneal fibro-myoma (shown) . . . 225
—— *Remarks* in reply 226
—— —— in discussion on W. Duncan's specimen of uterus removed at full term by intra-peritoneal hysterectomy in a case of contracted pelvis 11
—— —— in discussion on G. P. Anning and H. Littlewood's paper on primary ovarian pregnancy with rupture fourteen days after last menstruation 19
—— —— in discussion on G. E. Herman's paper on leukæmia and pregnancy 249
Giles (A. E.), *Remarks* in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion 149
—— —— in discussion on J. S. Fairbairn's specimen of carcinomatous tumour of ovary 210
Gilford (Hastings), uterine appendages of the left side showing evidences of the rupture of the sac of an ovarian pregnancy (shown) 24
Griffith (W. S. A.), *Remarks* in discussion on W. Duncan's specimen of uterus removed at full term by intra-peritoneal hysterectomy in a case of contracted pelvis . 11
—— —— in discussion on G. P. Anning and H. Littlewood's paper on primary ovarian pregnancy with rupture fourteen days after last menstruation 19
—— —— in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion 141, 155
—— —— in discussion on W. S. Handley's specimen of tubal mole with encysted hæmatocele . . . 259

PAGE
Griffith (W. S. A.), *Report* of Committee . . 288
—— person aged twenty-six; uncertain sex (shown) . 298
—— *Remarks* in discussion on a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months, complicated by cancer of the cervix . 318
Grigg, William Chapman, M.D., of Curzon Street, obituary notice of 60
Groves (Ernest W. Hey), pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion (with notes of two cases) . . . 117
—— —— adjourned discussion on . . . 148
—— *Remarks* in reply 158

Hæmatocele, tubal mole with encysted (W. S. Handley) . 255
Handfield-Jones (Montagu), *Remarks* in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion 155
Handley (W. S.), tubal mole with encysted hæmatocele (shown) 255
Herman (G. Ernest), leukæmia and pregnancy . . 234
—— *Remarks* in reply 250
—— sarcoma of the stomach (shown) . . . 2
—— *Remarks* in discussion on H. R. Spencer's specimen of cystic fibro-myoma of the uterus removed by posterior colpotomy 112
—— —— in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion . 140
—— —— in discussion on S. Boyd's specimen of suppurating fibroid tumour of the uterus 177
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 198
—— —— in discussion on A. C. Butler-Smythe's specimen of carcinomatous uterus removed eighteen and a half years subsequent to double ovariotomy . . . 216
—— —— in discussion on J. P. Maxwell's paper on spontaneous rupture of the uterus in placenta prævia . . 220
Horrocks (Peter), deciduoma malignum . . . 109
—— deciduoma malignum (shown) . . . 283
—— *Inaugural Address* as President . . . 79
—— *Remarks* in discussion on H. R. Spencer's specimen of cystic fibro-myoma of the uterus removed by posterior colpotomy 112

PAGE

HORROCKS (Peter), *Remarks* in discussion on H. R. Andrews' specimen of microscopical sections of the kidneys from a fatal case of puerperal eclampsia . . . 114
—— —— in discussion on C. E. Jenning's transfusion apparatus 147
—— —— in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion . 157
—— —— in discussion on S. Boyd's specimen of suppurating fibroid tumour of the uterus 177
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 203
—— —— in discussion on C. Lockyer's specimen of endometritis exfoliativa 207
—— —— in discussion on J. S. Fairbairn's specimen of carcinomatous tumour of ovary 211
—— —— in discussion on J. S. Fairbairn's specimen of tubal mole, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the tube 213
—— —— in discussion on J. P. Maxwell's paper on spontaneous rupture of the uterus in placenta prævia . . 221
—— —— in discussion on A. L. Galabin's specimen of sarcoma of uterus 227
—— —— in discussion on H. R. Andrews' specimen of fibromyoma of the ovary 233
—— —— in discussion on G. E. Herman's paper on leukæmia and pregnancy 250
—— —— in discussion on A. Doran and C. Lockyer's paper on sloughing fibroid of the left uterine cornu; abnormal relations 281
—— *Report* of Committee 288
—— *Remarks* in discussion on J. L. Maxwell's notes on two fatal cases of pernicious vomiting in pregnancy . 293
—— —— in discussion on C. H. Roberts's specimen of pelvic viscera showing pseudo-hermaphroditism . . 302
—— —— in discussion on C. Lockyer's specimen of septicæmic uteri, with bacteriological investigation . . 304
—— —— in discussion on a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months complicated by cancer of the cervix . 319
HOWELL, Horace Sydney, M.D, of Boundary Road, N.W., obituary notice of 63

PAGE

Hydramnios, orbital tumour in a hydrocephalic female fœtus, with tumour of cheek, maldevelopment of neck, associated with (H. S. Stannus) 304

Hysterectomy, abdominal, Doyen's method, in case of large uterus with cervical fibroid (H. R. Spencer) . . 5

—— combined vaginal and abdominal, for a pregnancy of four and a half months, complicated by cancer of the cervix (R. Sanderson) 312

—— in a case of contracted pelvis, uterus removed at full term by intra-peritoneal (W. Duncan) . . 9

—— intra-peritoneal, for removal of uterine fibroids (W. Duncan) 76

Jardine (Robert), *Remarks* in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion 150

Jennings (Charles Egerton), transfusion apparatus (shown) 146

—— *Remarks* in reply 147

Kerr (J. M. Munro), dermoid cyst of ovary obstructing labour; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (shown) . . . 145

—— *Remarks* in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion . 153

Kidneys, microscopical sections of, from a fatal case of puerperal eclampsia (H. R. Andrews) . . . 114

Labour, dermoid cyst of ovary obstructing; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. Munro Kerr) . . . 145

—— see *Parturition*.

Lawrence (Alfred Edward Aust), *Remarks* in discussion on W. Duncan's specimen of uterine fibroids removed by intra-peritoneal hysterectomy . . . 76

Laws, alteration in Chapter V, section 2 . . . 33

Lea (Arnold W. W.), *Report* on R. Boxall's specimen of cystic fibroid with carcinoma of the left ovary and of the right Fallopian tube 144

—— —— of Committee 145

—— sarcoma of uterus 73

PAGE
Leukæmia and pregnancy (G. E. Herman) . . 234
Lewers (A. H. N.), uterus with squamous epithelioma of cervix; removed in 1895; no recurrence in 1901 (shown) 266
—— *Remarks* in discussion on S. Boyd's specimen of suppurating fibroid tumour of the uterus . . . 177
—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 201
—— —— in discussion on A. Doran and C. Lockyer's paper on sloughing fibroid of the left uterine cornu; abnormal relations 280
List of Officers elected for 1901 33
—— —— *for* 1902 v
—— *of past Presidents* ix
—— *of Referees of Papers for* 1901 . . . x
—— *of Standing Committees* . . . vii, viii
—— *of Honorary Local Secretaries* . . . viii
—— *of Honorary Fellows* . . . xi, xii
—— *of Ordinary Fellows* xiii
—— *of Deceased Fellows* [with obituary notices, which see] . 50
Littlewood (Harry) and G. P. Anning, primary ovarian pregnancy, with rupture fourteen days after last menstruation 14
—— *Remarks* in reply 20
Lockyer (Cuthbert), congenital cœlomic cyst (shown) . 7
—— endometritis exfoliativa (shown) . . . 205
—— *Report* on Arnold Lea's specimen of sarcoma of the uterus and pelvic cellular tissue . . . 145
—— —— on R. Boxall's specimen of cystic fibroid with carcinoma of the left ovary and of the right Fallopian tube . 144
—— septicæmic uteri with bacteriological investigation (shown) 304
—— and A. Doran, sloughing fibroid of the left uterine cornu; abnormal relations 272
—— *Remarks* in reply 281
—— —— in discussion on W. S. Handley's specimen of tubal mole with encysted hæmatocele . . . 259

McCann (Frederick J.), *Remarks* in discussion on C. H. Roberts's specimen of pelvic viscera showing pseudohermaphroditism 303
Maxwell (James L.), notes on two fatal cases of pernicious vomiting in pregnancy 288

PAGE

Maxwell (J. Preston), on spontaneous rupture of the uterus in placenta prævia 217
Menstruation, primary ovarian pregnancy with rupture fourteen days after last (G. P. Anning and H. Littlewood) 14
Midwifery and diseases of women, a century's progress in, see *Address* (Inaugural).
Mole, tubal, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the tube (J. S. Fairbairn) . . 211
—— —— with encysted hæmatocele (W. S. Handley) . 255

Obituary notices of Deceased Fellows:
Claremont, Claude Clarke, Hampstead Road, N.W. . 62
Grigg, William Chapman, M.D., Curzon Street, W. . 60
Howell, Horace Sydney, M.D., Boundary Road, N.W. . 63
Potter, John Baptiste, M.D., F.R.C.P., George Street, Hanover Square, W. 64
Priestley, Sir William Overend, Kt., Hertford Street, W. 50
Œdema, two cases of fœtal ascites and (H. R. Andrews) . 166
Ovariotomy, double, carcinomatous uterus removed eighteen and a half years subsequent to (A. C. Butler-Smythe) . 214
Ovary, accessory papillomatous cyst of (A. L. Galabin) . 267
—— acute torsion of an ovarian pedicle, from a case where there was chronic torsion of the pedicle of a tumour of the opposite (A. Doran) 12
—— carcinomatous tumour of (J. S. Fairbairn) . . 208
—— dermoid cyst of, obstructing labour; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. Munro Kerr) 145
—— primary melanotic sarcoma of (H. R. Andrews) . 228
Ovum of about five days' growth, together with a decidual uterine cast, expelled after eight weeks' amenorrhœa (W. E. Fothergill) 162

Parturition, dermoid cyst of ovary obstructing; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. M. Kerr) 145
—— fibroid tumours complicating pregnancy and (A. Donald) 180
—— large ovarian tumour ruptured on the third day after (H. R. Spencer) 224

PAGE

Pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion (with notes of two cases) (E. W. Hey Groves) . . . 117
Pedicle, acute torsion of an ovarian; from a case where there was chronic torsion of the pedicle of a tumour of the opposite ovary (A. Doran) 12
Pelvis, contracted, uterus removed at full term by intra-peritoneal hysterectomy in a case of (W. Duncan) . 9
Peritonitis, gonorrhœal pelvic (J. Bland-Sutton) . . 251
Pessary, new (Hughes R. Davies) . . . 28
Placenta prævia, spontaneous rupture of the uterus in (J. P. Maxwell) 217
Polypus, multiple myxomatous, from the cervix uteri (W. Duncan) 75
Potter, John Baptiste, M.D., F.R.C.P., of George Street, Hanover Square, W., obituary notice of . . 64
Pregnancy and labour, fibroid tumours complicating (A. Donald) 180
—— ectopic, probably ovarian, *Report* of Committee on E. O. Croft's specimen of an anomalous case of . . 24
—— leukæmia and (G. E. Herman) . . . 234
—— of four and a half months, combined vaginal and abdominal hysterectomy for, complicated by cancer of the cervix (R. Sanderson) 312
—— orbital tumour in a hydrocephalic female fœtus, with tumour of cheek, mal-development of neck, associated with hydramnios, necessitating interference with, at the seventh month (H. S. Stannus) . . . 304
—— primary ovarian, with rupture fourteen days after last menstruation (G. P. Anning and H. Littlewood) . 14
—— two fatal cases of pernicious vomiting in (J. L. Maxwell) 288
—— uterine appendages of the left side showing evidences of the rupture of the sac of an ovarian (Hastings Gilford) . 24
Priestley, Sir William Overend, K.T., of Hertford Street, obituary notice of 50
Pseudo-hermaphroditism, pelvic viscera showing (C. H. Roberts) 298

Queen Victoria, loyal address submitted to the King on the death of 21
—— —— reply 143

PAGE

Report (audited) of the Treasurer for 1900 . . 28, 29
—— *of the Hon. Librarian for* 1900 . . . 30
—— *of the Chairman of the Board for the Examination of Midwives* 31
—— *of Committee on E. O. Croft's specimen of an anomalous case of ectopic pregnancy, probably ovarian* (*see* 'Transactions,' vol. xlii, p. 316) 24
—— —— *on R. Boxall's specimen of cystic fibroid with carcinoma of the left ovary and of the right Fallopian tube, p.* 71 144
—— —— *on specimen of sarcoma of the uterus and pelvic cellular tissue, shown, by Arnold Lea on March 6th,* 1901 . 145
—— —— *on specimen of deciduoma malignum, shown by P. Horrocks on April 3rd,* 1901 287
Roberts (C. Hubert), pelvic viscera showing pseudo-hermaphroditism (shown) 298
—— *Report* on E. O. Croft's specimen of an anomalous case of ectopic pregnancy, probably ovarian . . 25
—— *Remarks* in discussion on W. W. H. Tate's specimen of fibro-myoma of uterus showing marked cystic degeneration, removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before 27
Robinson (G. D.), *Remarks* in discussion on J. S. Fairbairn's specimen of tubal mole, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the tube . 213
—— —— in discussion on J. P. Maxwell's paper on spontaneous rupture of the uterus in placenta prævia . 220
—— —— in discussion on J. Bland-Sutton's specimen of gonorrhœal pelvic peritonitis 254
Routh (A.), tubal abortion with rupture of tube (shown) . 294
—— *Remarks* in discussion on W. Duncan's specimen of uterus removed at full term by intra-peritoneal hysterectomy in a case of contracted pelvis . . . 11
—— —— in discussion on H. R. Spencer's specimen of cystic fibro-myoma of the uterus removed by posterior colpotomy 112
—— —— in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion . 154
—— —— in discussion on S. Boyd's specimen of suppurating fibroid tumour of the uterus 177

PAGE

ROUTH (A.), *Remarks* in discussion on J. P. Maxwell's paper on spontaneous rupture of the uterus in placenta prævia . 221
—— —— in discussion on G. E. Herman's paper on leukæmia and pregnancy 249
—— —— in discussion on a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months, complicated by cancer of the cervix . 318
Rupture in primary ovarian pregnancy fourteen days after last menstruation (G. P. Anning and H. Littlewood) . 14
—— of Fallopian tube and tubal abortion (A. Routh) . 294
—— of the sac of an ovarian pregnancy, evidences of, in uterine appendages of the left side (Hastings Gilford) . 24
—— spontaneous, of the uterus in placenta prævia (J. P. Maxwell) 217

Sac of an ovarian pregnancy, uterine appendages of the left side showing evidences of the rupture of (Hastings Gilford) 24
Salpingitis, double, and carcinoma of cervix, fibro-myoma of uterus complicated with (W. W. H. Tate) . . 270
SANDERSON (R.), combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months, complicated by cancer of the cervix . . . 312
—— *Remarks* in reply 320
Sarcoma of ovary, primary melanotic (H. R. Andrews) . 228
—— of the stomach (G. Ernest Herman) . . . 2
—— of uterus (W. Duncan) 228
—— —— (A. L. Galabin) 226
—— —— (A. W. W. Lea) 73
Sex, uncertain; person aged twenty-six (W. S. A. Griffith) . 298
SMITH (G. Bellingham), *Report* of Committee . . 288
SPENCER (Herbert R.), cystic fibro-myoma of the uterus removed by posterior colpotomy (shown) . . 110
—— *Remarks* in reply 113
—— large ovarian tumour ruptured on the third day after labour (shown) 224
—— *Remarks* in reply 224
—— large uterus, with cervical fibroid, removed by abdominal hysterectomy by Doyen's method (shown) . . 5
—— *Remarks* in reply 6
—— *Report of Committee* 288
—— *Remarks* in discussion on G. Ernest Herman's specimen of sarcoma of stomach 5

PAGE

Spencer (Herbert R.), *Remarks* in discussion on W. W. H. Tate's specimen of fibro-myoma of uterus showing marked cystic degeneration, removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before 28

—— —— in discussion on E. W. Hey Groves's paper on the pathology and treatment of puerperal eclampsia, with special reference to the use of saline transfusion . 139

—— —— in discussion on A. Donald's paper on fibroid tumours complicating pregnancy and labour . . 201

—— —— in discussion on R. Alcock's specimen of cystic corpus luteum 208

—— —— in discussion on A. C. Butler-Smythe's specimen of carcinomatous uterus removed eighteen and a half years subsequent to double ovariotomy . . . 215

—— —— in discussion on J. P. Maxwell's paper on spontaneous rupture of the uterus and placenta prævia . 220

—— —— in discussion on A. L. Galabin's specimen of sarcoma of uterus 227

—— —— in discussion on W. S. Handley's specimen of tubal mole with encysted hæmatocele . . . 259

—— —— in discussion on A. Doran's specimen of fibroid of broad ligament associated with an ovarian cyst . . 266

—— —— in discussion on A. L. Galabin's specimen of papillomatous cyst of an accessory ovary . . 267

—— —— in discussion on R. Sanderson's paper on a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months, complicated by cancer of the cervix 318

Stannus (Hugh S.), orbital tumour in a hydrocephalic female fœtus, with tumour of cheek, maldevelopment of neck, associated with hydramnios, necessitating interference with the pregnancy at the seventh month (shown) . 304

Stevens (T. G.), *Remarks* in discussion on W. E. Fothergill's specimen of decidual uterine cast, expelled after eight weeks' amenorrhœa, together with an ovum of about five days' growth 165

Stomach, sarcoma of (G. Ernest Herman) 2

Sturmer (A. J.), (?) hydatidiform cysts growing in the vulva (shown) 148

Targett (J. H.), *Report of Committee* . . . 288

—— —— on Arnold Lea's specimen of sarcoma of the uterus and pelvic cellular tissue 145

PAGE

TARGETT (J. H.), *Report* on E. O. Croft's specimen of an anomalous case of ectopic pregnancy, probably ovarian . 25
—— —— on R. Boxall's specimen of cystic fibroid with carcinoma of the left ovary and of the right Fallopian tube 144
—— *Remarks* in discussion on A. L. Galabin's specimen of papillomatous cyst of an accessory ovary . . 269
TATE (Walter W. H.), fibro-myoma of uterus complicated with double salpingitis and carcinoma of cervix (shown) . 270
—— fibro-myoma of uterus showing marked cystic degeneration, removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before (shown) 26
—— *Remarks* in discussion on A. C. Butler-Smythe's specimen of carcinomatous uterus removed eighteen and a half years subsequent to double ovariotomy . . 215
—— —— in discussion on R. Sanderson's paper on a case of combined vaginal and abdominal hysterectomy for a pregnancy of four and a half months . . . 317
Torsion, acute, of an ovarian pedicle, from a case where there was chronic torsion of the pedicle of a tumour of the opposite ovary (A. Doran) 12
Transfusion apparatus (C. E. Jennings) . . . 146
Transfusion, use of saline, in treatment of puerperal eclampsia (E. W. Hey Groves) 117
Tubal mole, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the tube (J. S. Fairbairn) . . 211
Tube, see *Fallopian tubes*.
—— Fallopian, tubal mole, showing escape of the body of the embryo through the fimbriated opening, with retention of the head and amniotic cavity in the (J. S. Fairbairn) . 211
Tumour, carcinomatous, of ovary (J. S. Fairbairn) . . 208
—— cystic fibro-myoma of the uterus removed by posterior colpotomy (H. R. Spencer) 110
—— dermoid cyst of ovary obstructing labour; displacement of the tumour from the true pelvis and extraction of the child with forceps; removal of tumour five weeks later; recovery (J. M. Munro Kerr) 145
—— fibroid cystic, with carcinoma of left ovary and right Fallopian tube (R. Boxall) 71
—— fibroid uterine, removed by intra-peritoneal hysterectomy (W. Duncan) 76

PAGE

Tumour (?) hydatidiform cysts growing in the vulva (A. J. Sturmer) 148
—— large ovarian, ruptured on the third day after labour (H. R. Spencer) 224
—— orbital, in a hydrocephalic female fœtus with tumour of cheek, maldevelopment of neck, associated with hydramnios, necessitating interference with the pregnancy at the seventh month (H. S. Stannus) . . . 304
—— suppurating fibroid, of uterus (S. Boyd) . . 172
Tumours, fibroid, large uterus with cervical, removed by abdominal hysterectomy by Doyen's method (H. R. Spencer) 5
—— —— of broad ligament associated with an ovarian cyst (A. Doran). 260
—— pregnant fibroid uterus removed at the fifth month (A. Doran) 178

Uterine appendages of the left side showing evidences of the rupture of the sac of an ovarian pregnancy (Hastings Gilford) 24
Uterus bicornis unicollis (W. F. V. Bonney) . . 77
—— carcinomatous, removed eighteen and a half years subsequent to double ovariotomy (A. C. Butler-Smythe) . 214
—— cystic fibro-myoma of, removed by posterior colpotomy (H. R. Spencer) 110
—— decidual cast of, expelled after eight weeks' amenorrhœa, together with an ovum of about five days' growth (W. E. Fothergill) 162
—— fibro-myoma of, complicated with double salpingitis and carcinoma of cervix (W. W. H. Tate) . . . 270
—— —— of, showing marked cystic degeneration, removed from a patient aged sixty-three, from whom both ovaries had been removed eleven years before (W. W. H. Tate) . 26
—— large, with cervical fibroid, removed by abdominal hysterectomy by Doyen's method (H. R. Spencer) . . 5
—— multiple myxomatous polypi from the cervix of (W. Duncan) 75
—— pregnant fibroid, removed at the fifth month (Alban Doran) 178
—— removed at full term by intra-peritoneal hysterectomy in a case of contracted pelvis (W. Duncan) . . 9
—— sarcoma of (A. L. Galabin) 226
—— sarcoma of (A. W. W. Lea) 73

PAGE
Uterus, septicæmic, with bacteriological investigation (C. Lockyer) 304
—— spontaneous rupture of, in placenta prævia (J. P. Maxwell) 217
—— suppurating fibroid tumour of (S. Boyd) . . 172
—— see *Hysterectomy*.
—— tumours of, see *Tumours*.
—— with squamous epithelioma of cervix; removed in 1895; no recurrence in 1901 (A. H. N. Lewers) . . 266

Viscera, pelvic, showing pseudo-hermaphroditism (C. H. Roberts) 298
Volsella forceps for the soft dilated cervix (R. Wise) . 233
Vomiting in pregnancy, two fatal cases of pernicious (J. L. Maxwell) 288
Vulva, hydatidiform cysts growing in (A. J. Sturmer) . 148

Wise (Robert), volsella forceps for the soft dilated cervix (shown) 233

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